

Glenn Springs Holdings, Inc.

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July 30, 2008

OVERNIGHT COURIER

Ms. Donna McCartney (3WC23) U.S. EPA Region III 1650 Arch Street Philadelphia, PA 19103-2029

Re: Progress Report for January through March 2008

Delaware City Plant RCRA Corrective Action Program

Dear Ms. McCartney:

This progress report describes the work completed pertaining to the RCRA Corrective Action (CA) Program at the Delaware City Plant during the months of January through March 2008 and anticipated work during the months of April through June 2008.

The Plant is currently undergoing decommissioning and demolition. These activities will continue through 2008 and into 2009.

Schedule

Figure 1 provides an updated Schedule for the RCRA CA project and the SWMUs/AOCs where additional work is being performed to achieve final remedies.

The following presents a list of correspondence during January through March 2008.

DATE	DESCRIPTION	TYPE	FROM	TOPIC
January 3, 2008	EPA review findings for	Email	EPA	EPA comments regarding the total
	proposed cleanup level for CBs			chlorobenzenes cleanup criterion
January 4, 2008	EPA comments - Feedback RLC Memo and March-April 2007 PMP report	Email	EPA	EPA comments for RLC memo (bat and swallow risk) and PMP report
January 8, 2008	Response to EPA comments regarding the proposed cleanup level for CBs	Email	CRA	Response to EPA comments regarding the total chlorobenzenes cleanup criterion
January 23, 2008	DRAFT- NFA SWMUs		CRA	Select sections of CMS Report where no further action is required
January 25, 2008	Additional Data Collection Report	Report	CRA	Presenting Data to support CMS
January 29, 2008	DRAFT- AOC 10 CMS Section		CRA	AOC 10 Section of CMS Report
March 14, 2008	USEPA Comment Letter on HHRA	Comment letter	EPA	HHRA Report

1.0 Work Completed

1.1 Corrective Measures Study (CMS)

During the months of January through March 2008, GSHI continued preparation of the CMS report. Table 1 provides a list of the Solid Waste Management Units (SWMU) and Areas of Concern (AOC), and their current status as of this progress report. In general, the CMS will include a section for each SWMU/AOC that summarizes history/operations, summarizes available data and screens the data to approved screening criteria, and evaluates the SWMU/AOC based on cleanup criteria. If a remedy is required, the SWMU/AOC section will also evaluate potential remedies based on the RCRA evaluation process and describe the recommended remedy. A section describing the Plant closing and decommissioning will be included in the CMS.

GSHI focused their initial efforts on the 10 SWMUs, which are located within the Plant Process Area and characterized as "No Further Action". The Draft CMS sections for these SWMUs were submitted to EPA on January 23, 2008. On January 29, 2008, GSHI submitted to EPA a Draft CMS section for the Former Lay Down Area (AOC 10). This Draft section is considered a template that will be followed in the preparation of the CMS sections for most of the other SWMUs and AOCs.

1.2 Human Health Risk Assessment (HHRA)

On October 19, 2007, GSHI received a first set of comments from EPA regarding the draft Human Health Risk Assessment (HHRA) report dated April 20, 2007. GSHI responses to EPA's initial comments were submitted to EPA on December 12, 2007. Following GSHI's initial response to comments, EPA has subsequently issued a second set of comments on March 14, 2008. In April 2008, GSHI submitted responses to the EPA's March 14th comments.

1.3 Ecological Risk Assessment (ERA)

An Ecological Risk Assessment (ERA) is being prepared for submittal to EPA. In early 2007 additional worm and soil sampling was completed at WL-2. These results were summarized in a September 2007 memorandum entitled "Results of Resampling at WL-2 and Update of Risk to Worm-Eating Wildlife". In summary, the conclusions presented within this memorandum describe that the ecological risk to worm-eating predators was not of concern. On December 7, 2007, GSHI received comments from EPA on this memorandum. GSHI is currently preparing responses to these comments and is preparing for additional sampling to address these issues.

1.4 <u>Draft Groundwater Focused Feasibility Study (FFS)</u>

On June 7, 2007, GSHI submitted to EPA a Groundwater Focused Feasibility Study (FFS) for SWMUs/AOCs that may require final groundwater remedies. The FFS includes groundwater in the vicinity of the Waste Lake 1 barrier wall (Area 7), groundwater in the vicinity of the Process Area barrier wall (Area 9), and the Free-Phase DNAPL (Area 13). EPA provided comments regarding the Groundwater FFS on April 18, 2008. GSHI is currently preparing responses to these comments.

1.5 Additional Data Collection

In May and June 2007, GSHI collected additional data at several areas that were identified as requiring additional sampling and analysis in order to make a final remedy decision. These

SWMUs/AOCs include the Stormwater Drainage Pond and Outfall 003 (SWMU 6), the area north of the SC Pipeline (AOC 12), overland flow (runoff) pathways (AOC 14), the Former Lay Down Area (AOC 10), and the ChemFix Test Unit Area (SWMU 12). Following collection of these samples and receipt of the laboratory results, GSHI completed the relevant CMS sections related to these SWMUs/AOCs in a report entitled "Additional Data Collection Report". This report presents the methodologies and results of this sampling program. The report was submitted to EPA on January 24, 2008. In April 2008, GSHI submitted a separate report presenting the results of the investigation of AOC 12.

1.6 Groundwater

Performance Monitoring Program (PMP)

A Performance Monitoring Program (PMP) is implemented to monitor groundwater conditions at the Site. The PMP was initiated following construction of barrier walls and groundwater extraction at Waste Lake 1 and the Process Area in 2003. The 2007 PMP is based on the sampling program proposed in the 2006 PMP Report dated March 2007, review of EPA's September 30, 2006 comments regarding the 2006 PMP Report, and responses to EPA's comments previously transmitted to EPA on November 30, 2006 (see letter dated March 5, 2007). GSHI is currently preparing the annual PMP report. The 2008 PMP report (reflecting 2007 data) will consider and incorporate any necessary changes as outlined in the EPA's January 7, 2008 comments (email from D. McCartney). The comments were based upon EPA's review of the April 2007 PMP report.

Groundwater Flow

Water levels were collected in Site monitoring wells to assess the impacts of the barrier wall construction on groundwater flow patterns. Attachment A provides potentiometric surface maps for the Water Table and Potomac A Sands for February and March 2008. No water level data were collected for January 2008. Note that water levels will be measured monthly for the remainder of 2008.

Evaluation of the water table data shows that:

- At the Process Area, there is an inward gradient along the east, south, and west portion of the barrier wall. There is an outward gradient along the north portion of the barrier wall.
- At Waste Lake 1, there is an inward gradient around the south and east portions of the wall, with an outward gradient along the northwest portion.
- Minimal change in the water table elevation (~0 to 1 foot increase) has occurred in the north-south trending Columbia Paleochannel between the Process Area and Waste Lake 1 barrier walls.

Evaluation of the Potomac A Sands data shows that:

- At Waste Lake 1 (where the Potomac A Sands are present), there is an inward gradient around the south and east portions of the wall, with an outward gradient along the northwest portion.

The table below presents the average head difference (for February and March 2008) at the well pairs located around the Process Area barrier. Figure A.5 presents the hydraulic head difference across the barrier graphically. The area where hydraulic gradients are outward is highlighted in yellow. The figure also presents two curves, one for each month when water levels were measured during the first quarter of 2008. There was very little temporal change in the gradients across the barrier.

		Average 1 st Qtr		Average 1 st Qtr	
Hydraulic	Outside	Elev.	Inside	Elev.	Difference
Zone	Well	(ft msl)	Well	(ft msl)	(ft)
Water	A-36D	11.58	A-48	6.74	4.84
Table					
Water	A-45	6.24	A-51	6.51	-0.27
Table					
Water	A-50	3.93	A-40D	6.38	-2.45
Table					
Water	A-49	4.93	A-35D	6.59	-1.66
Table					
Water	A-46	9.41	A-53	7.06	2.35
Table					

Notes:

In summary, the Process Area barrier wall is performing as expected, and the 1st Quarter 2008 data are consistent with historical data collected since construction of the barrier walls.

The table below presents the average head difference (for February and March 2008) around the WL-1 barrier. Figures A.6 and A.7 present the hydraulic head difference across the barrier graphically for February 2008 and March 2008 respectively. The areas where hydraulic gradients are outward are highlighted in yellow on the figures. The figures also present curves of the gradients along the barrier. There was very little temporal change in the gradients across the barrier.

		Average	Average 1 st Qtr	
		1 st Qtr	Inside	
Hydraulic	Outside	Elev.	Elev.	Difference
Zone	Well	(ft msl)	(ft msl)	(ft)
Water	R-112	6.02	4.12	1.90
Table				
Water	A-25D	4.25	4.12	0.13
Table				
Water	A-37S	1.85	4.12	-2.27
Table				
Water	A-47	6.97	4.12	2.85
Table				
Water	R-110	7.69	4.12	3.57
Table				
Water	A-39D	6.90	4.12	2.78
Table				

Notes:

In summary, the WL-1 Area barrier wall is performing as expected, and the 1st Quarter 2008 data are consistent with historical data collected since construction of the barrier walls.

Analytical Results

Analytical results for the February 2008 (1st Quarter) round of groundwater sampling for the PMP are provided in Attachment B. The results are screened to the applicable screening criteria. The data validation package for the sampling event is also included in Attachment B. The following wells

A positive 'Difference' indicates an inward gradient; a negative difference an outward gradient.

[•] A positive 'Difference' indicates an inward gradient; a negative difference an outward gradient.

were sampled and analyzed for total and dissolved mercury: A-27D, A-27S, A-44, A-49, A-50, A-66D, A-66S, A-67D, A-67S. The following wells were sampled and analyzed for volatile organic compounds (VOCs), total and dissolved mercury, total and dissolved metals: A-65, A-69, A-70, A-71, A-75 and A-77. Laboratory analyses were completed at H2M Laboratories in Mellville, New York. Field parameters were measured for all wells sampled during this event. Field parameter data sheets are included in Attachment B.

As part of the February PMP sampling event, GSHI also completed surface water sampling at the Tributary (Stations G through N). Each of these samples was analyzed for total and dissolved mercury and Target Compound List (TCL) VOCs. Attachment B presents this data, screened to the USEPA surface water quality criteria.

Attachment B also presents groundwater analytical data associated with the ongoing monthly sampling of A-35D, A-35S, and A-49. Wells A-35D and A-35S are located inside the Process Area Barrier Wall along the north side, while well A-49 is located outside the barrier wall adjacent to the A-35D well pair. This sampling program was initiated due to the elevated total and dissolved mercury results detected in groundwater at monitoring well A-35D during the August 2007 PMP sampling event (57,800 ug/L and 73,300 ug/L for total and dissolved respectively). The dissolved mercury results for A-35D for January, February 2008 were 25,800 and 46,700, respectively. The wells were not sampled in March 2008. Monthly sampling of well A-35D will continue in order to monitor mercury concentrations in this well and surrounding wells. This is an expected outcome of pumping within the barrier wall. The elevated monitoring is intended to gain a further basis for Mass Flux along the barrier wall.

Groundwater Treatment System Operations

The groundwater treatment system (GWTS) was operated during the months of January through March 2008. Attachment C includes the GWTS daily logs, details regarding the volume of water pumped each day, notes regarding operations, and analytical results for the treatment system samples collected during the months of January through March 2008. Groundwater is pumped from within the Process Area barrier wall (Collection Trench) and WL-1 barrier wall (Water Table Extraction Well EW-1) and treated via two carbon beds. The treated water then flows into the Plant's existing wastewater treatment plant (WWTP) where it undergoes additional treatment. Each of the samples discussed relates to monitoring prior to entering the Plant's WWTP. Following treatment, the water is discharged to the Delaware River under a revised NPDES permit effective March 1, 2007 (NPDES Permit No. DE 0050911).

As per the GWTS O&M Manual, carbon change outs to the system lead bed and/or carbon interbeds are required when analytical testing indicates exceedances to the SWRS for the Carbon-Interbed or System Effluent samples. Due to the VOC exceedances for the Carbon-Interbed sample (March 6, 2008), a carbon changeout was completed on March 12, 2008.

The 1st Quarter 2008 Collection-Trench, Carbon-Influent, Carbon-Interbed and System-Effluent analytical sample results were screened to the Surface Water Risk Screening Criteria (SWRS). GWTS results are presented in Attachment C. The Carbon-Interbed sample (March 6, 2008) resulted in exceedances for chlorobenzene, 1,2-dichlorobenzene, 1,4-dichorobenzene, benzene, chloroform, and vinyl chloride. Vinyl chloride exceedances were recorded in all of the Carbon-Interbed samples collected in February. None of the Carbon-Interbed sample results exceeded the SWRS for mercury. One System-Effluent sample (February 8, 2008) resulted in exceedances for total selenium, and total and dissolved cobalt, manganese, silver and thallium. None of the System-Effluent samples analyzed for mercury exceeded the SWRS screening criteria or average monthly or maximum daily NPDES Permit criteria.

Pumping at the Collection Trench ranged from 0.00 to 22 gpm with an average rate of 5.5 gpm. Pumping at the Water Table Extraction Well (EW-1) at WL-1 ranged from 0.0 to 3.0 gpm with an average of 1.4 gpm. As agreed to with EPA, the Potomac Extraction Well (EW-2) at WL-1 was not pumped (see WL-1 Groundwater section). The extraction rates are consistent with previous operational rates. Well EW-1 was not in operation during the GWTS shutdown in March,

The GWTS was shut down from March 7 to April 3, 2008 due to a leak in Carbon Bed A. Concurrent with this shutdown was the switch to a new control system affecting the totalizer data. Therefore, there was no pumping from the Collection Trench or Water Table Extraction Well (EW-1) during the aforementioned dates. Filter change out and observation documentation is included in Attachment C as the GWTS Daily Log Sheets.

DATE	DESCRIPTION
March 5, 2008	Shutdown for leak at discharge piping on GWTS building west wall
March 7, 2008	Shutdown for leak in Carbon Bed A tank and switch to new Honeywell control system
March 12, 2008	Carbon changeout at Carbon Bed A
April 3, 2008	System Restart

As will be documented in the 2007 PMP report, minor changes are recommended to the current extraction and treatment system operations for 2008. Specifically, GSHI proposes to pump the Collection Trench and extraction well EW-1 at their maximum rates. This maximum pumping will be initiated in April 2008. Preliminary data indicate that pumping from the Collection Trench may be sustainable at approximately 20 gpm, compared to a 5.9 gpm average in 2007; and EW-1 may be sustainable at 3 GPM, approximately double the 2007 average rate of 1.6 gpm.

1.7 Waste Lake 1

Waste Lake 1 Cap

Attachment D provides the completed Waste Lake 1 Cap inspection form conducted on March 31, 2008. This inspection is completed to ensure that the integrity of the cap is maintained. No major issues were identified during the inspection.

DNAPL Measurements and Recovery

During January through March 2008, field activities were performed at the DNAPL area located northwest of Waste Lake 1. These activities included monitoring for the presence of DNAPL and measurement of DNAPL thickness in each of the monitoring wells in the DNAPL area. DNAPL was pumped from the monitoring wells when adequate volume was present. The DNAPL was containerized in a drum with an over-pack. The drum was staged on-site in a secure area for proper disposal.

DNAPL recovery for the 1st Quarter 2008 totaled 39 gallons (359 lbs.). The total DNAPL recovered to date from the DNAPL area is 941 gallons (8,681 lbs.) since free-phase recovery was initiated on May 21, 2004. Attachment E provides data summarizing the DNAPL thickness measurements and DNAPL recovery. On February 15, 2008, approximately 1 gallon of DNAPL was drained from the cone-shaped DNAPL Collection Tank in the GWTS plant.

WL-1 Groundwater

Based on the 2006 WL-1 pumping test, GSHI recommended pumping extraction well, EW-1, in the Water Table, and shutting down extraction well EW-2, in the Potomac A Sands. EW-1 is to be operated to maintain a zero or upward gradient between the Potomac A Sands to the Water Table. The EPA has agreed with this approach and requested that water levels be monitored in four wells using electronic level recorders: the three wells inside the WL-1 barrier (Water Table wells A-55 and A-57, and Potomac A Sands well A-54), and one well outside the barrier (Potomac A Sands well A-78). Continuous water level recorders had previously been maintained in A-55 and A-78. GSHI installed recorders in A-54 and A-57 in April 2007.

Figure 1 in Attachment F provides a summary of the data for WL-1, including:

- Hydrographs for water level recorder data from A-54, A-55, A-57, and A-78; and
- Pumping rates from EW-1.

Previous data has shown that the desired upward gradient from the Potomac A Sands to the Water Table can be maintained within WL-1 when well EW-1 is pumped continuously at 2.5 gpm or more. The gradient is monitored between Water Table well A-57 and Potomac A Sands well A-54. Gradient reversal was not maintained at the end of the previous quarter due to operational issues. During January and February 2008 pumping from EW-1 was more continuous such that gradient reversal was achieved at the end of February. Gradient reversal was not maintained during the month of March due to the GWTS operational issues discussed previously.

1.8 Routine Inspections

Attachment G presents the cap inspection forms for WL-3, the OBSL, and Stormwater Drainage Channels. In addition, Attachment G presents monthly inspections for the Former Lay Down Area were conducted. On March 31, 2008, the following observations were made during inspections:

- WL-3 had wind blown debris on the cap.
- OBSL grass was thin or absent from some areas, re-seeding was scheduled. Wind blown debris was observed on the cap.
- Debris was removed from the Stormwater Drainage Channels and oil booms were replaced.

There were no issues with the silt fence at the Former Lay Down area during January through March 2008.

1.9 New Brine Sludge Landfill (NBSL)

Attachment H presents the NBSL Post-Closure Inspection reports. During the period of January through March 2008 no leachate was pumped from the NBSL sump.

1.10 Plant Activities

No excavation occurred at the facility during the first quarter. However, several activities have taken place throughout the facility during the quarter to prepare for the demolition.

- The facility's main power supply has been shut down. A new power system has been installed along Haul Road. Obsolete electrical connections are being eliminated at the utility poles and buildings.

- Air-gapping is being completed throughout the plant. Insulation removal from the tanks and piping are currently being conducted in preparation of demolition activities.
- Soil sampling and sediment removal was conducted from the north area of the cell building.
- The guard shack has been moved to the North Gate. Office personnel and facilities have been relocated to the instrument/electrical shop building.

2.0 Work Planned

2.1 Submittals

During the months of April through June 2008, GSHI plans to continue to work on the following documents related to the CMS and final remedies for the site:

- Responses to EPA's comments dated March 14, 2008 regarding the Draft Human Health Risk Assessment Report.
- 2007 PMP Report and Response to EPA's comments regarding the 2006 PMP Report (dated March 2007).
- Response to EPA's comments regarding WL-2 and proposed additional sampling
- AOC 12: 2007 Investigation: Report of Results.
- Corrective Measures Study (select draft sections including the AOC 12 and SWMU 12 (ChemFix Test Unit).

2.2 Groundwater

2nd Quarter 2008 PMP Sampling

The 2nd quarterly PMP sampling event will be completed in May 2008. Select Site monitoring wells will be sampled and analyzed for VOCs, total and dissolved metals (including mercury). Groundwater samples will also be analyzed for natural attenuation parameters. Discrete surface water samples will be collected in the Tributary (Stations G through N) and analyzed for VOCs, dissolved Target Analyte List (TAL) metals, and total and dissolved mercury. In addition, GSHI will continue monthly sampling well A-35D and several surrounding wells for total and dissolved mercury and complete monthly synoptic water levels measurements.

Groundwater Treatment System

GSHI will continue to operate the groundwater treatment system as per the EPA-approved O&M Plan.

DNAPL

GSHI will continue routine measurements and recovery of DNAPL in the area northwest of Waste Lake 1.

New Brine Sludge Landfill

GSHI will complete routine inspections and any required leachate pumping at the NBSL in accordance with the Post-Closure Permit. The next semi-annual groundwater-sampling event is scheduled for May 2008.

2.3 Soil

As needed, the Plant is implementing the Excavation Procedure, which was conditionally approved by EPA in a letter dated July 19, 2002. The procedure will remain in effect until a final remedy decision is made.

2.4 Routine Inspections

Routine inspections associated with several SWMUs will be completed as per the schedule in the table below.

Activity	Type of Inspection	Frequency
Former Lay Down Area	Silt Fence	Monthly
Stormwater Drainage Pond	General Condition	Monthly
WL-1	Cap	Monthly
WL-3	Cap	Bi-annual
OBSL	Cap	Bi-annual
Stormwater Channels and Outfalls	General Condition	Bi-annual

2.5 Plant Activities

Demolition work is anticipated to begin in late July 2008.

Certification

I certify that the information contained in or accompanying this letter is true, accurate and complete. As to those portions of this response for which I cannot personally verify their accuracy, I certify under penalty of law that this letter and all attachments were prepared in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

If you have any questions, please do not hesitate to call. I can be reached at (972) 687-7504.

Sincerely,

Richard J. Passmore

Director of Operations

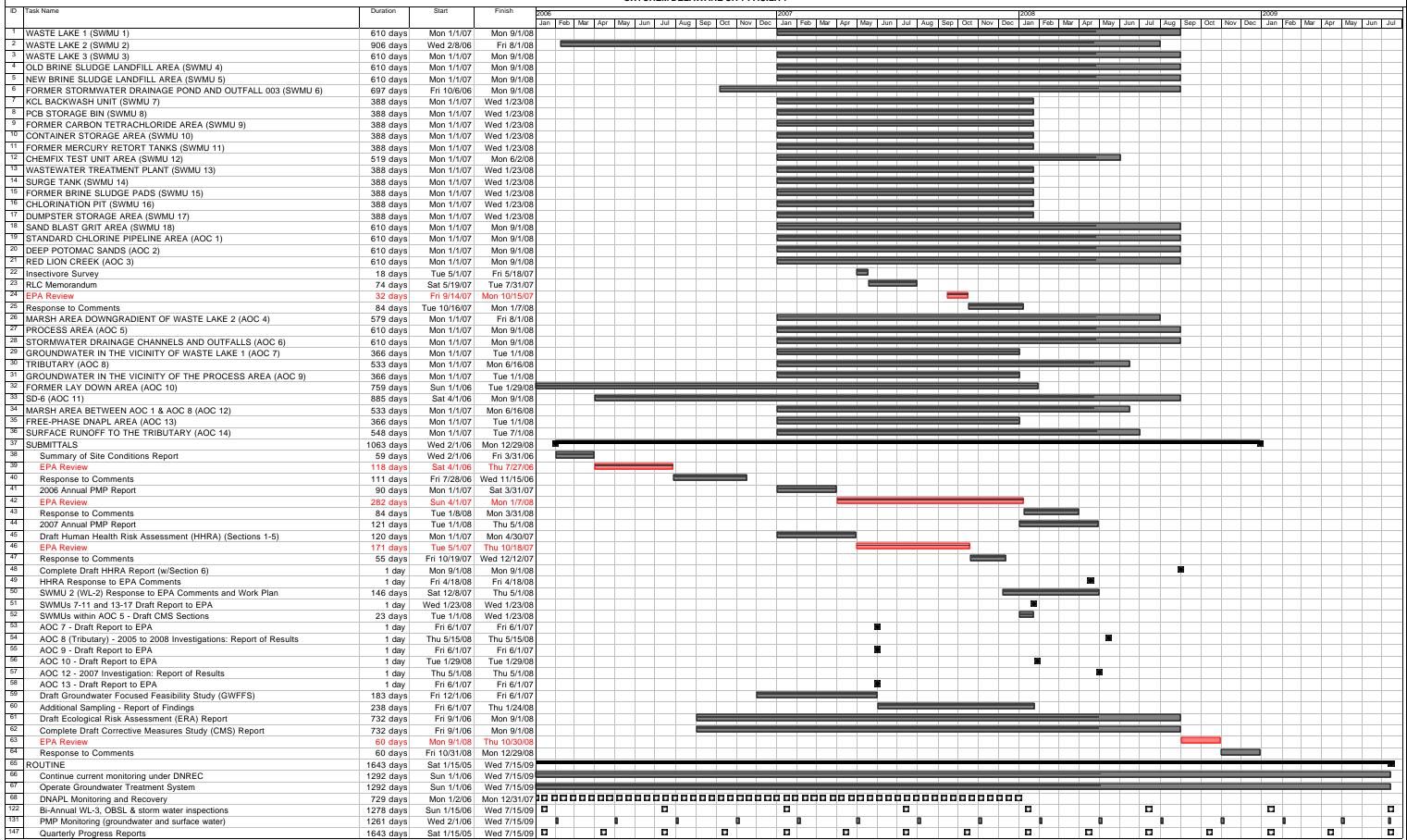
cc: Donna McCartney, EPA (4-copies)

Eric Trinkle, DNREC (2-copies)

John Garges, CRA Jack Armstrong, GSHI



FIGURE 1 FINAL REMEDIES SCHEDULE OXYCHEM DELAWARE CITY FACILITY



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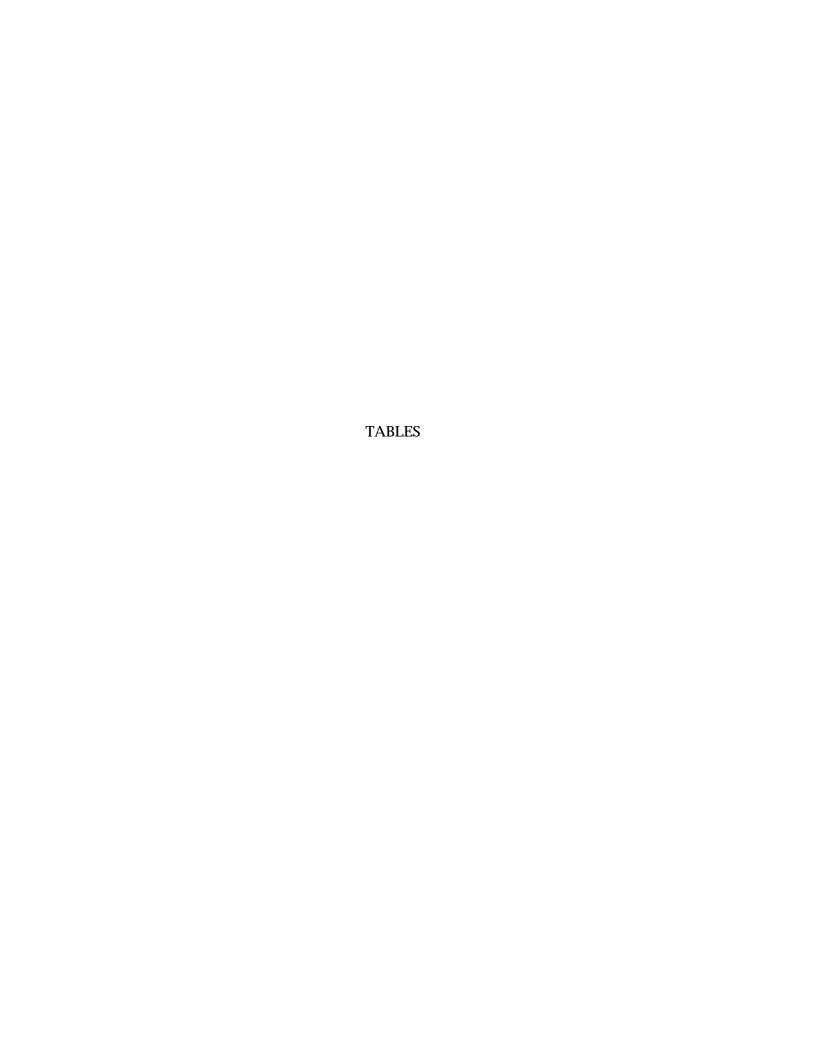


TABLE 1 SWMUs and Other Areas of Concern OxyChem Delaware City, Delaware Facility

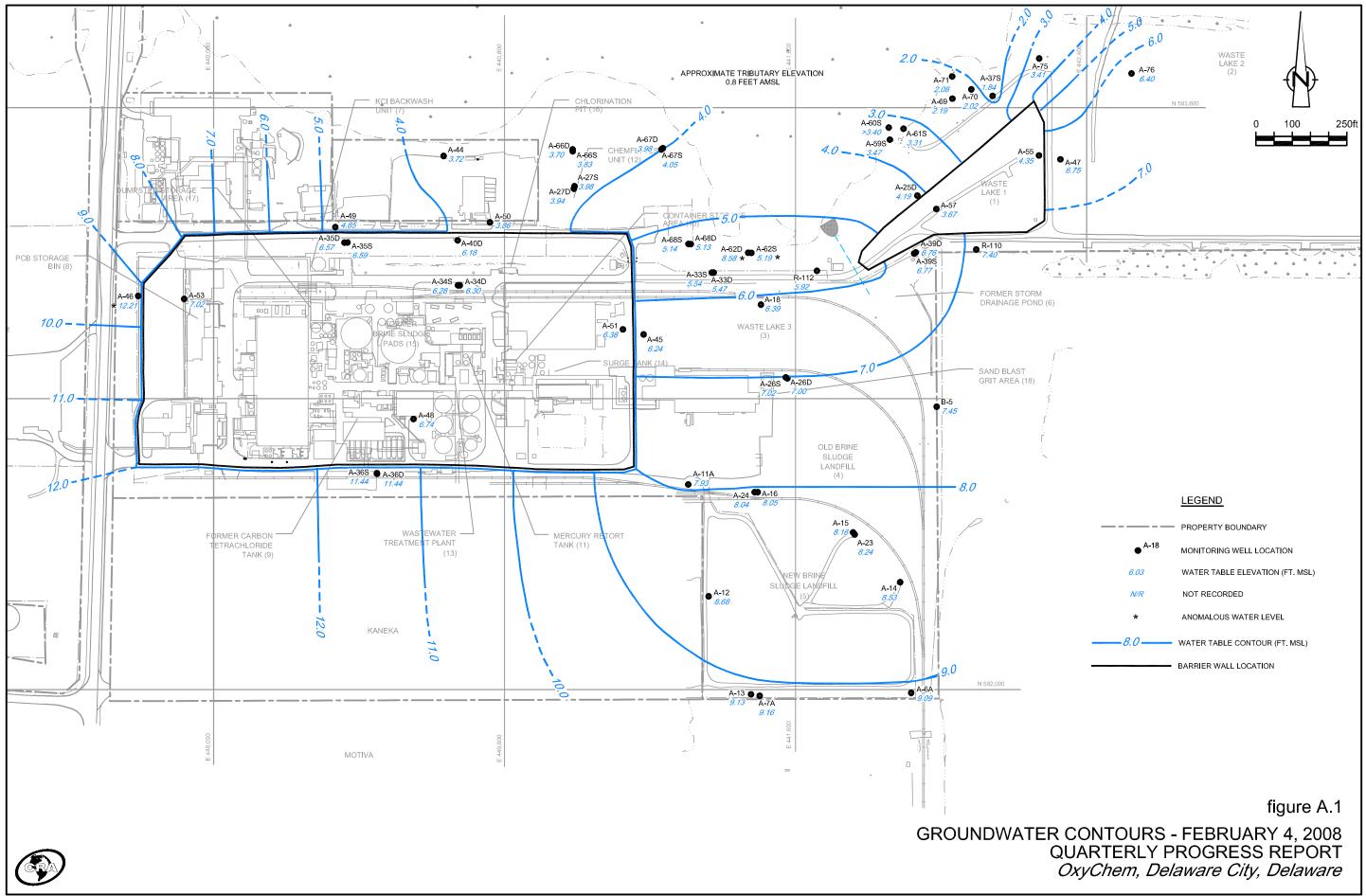
Number	SWMU/Other Area	Status	Does Data Exist?	If YES, what?	Will SWMU be decommissioned ?	Reference document(s)
SWMU 1	Waste Lake 1	Barrier wall, extraction wells, and final cover constructed in 2003-04. Ongoing operations and groundwater monitoring.	YES	Soil and groundwater	NA	Several prior to 1990, Phase I (1993) & Phase II (1998), IM Work Plan (1998), IMs WL-1 & WL-3 (1999), Plant Screening Work Plan (2000), RD Report (2000), Phyto Screening Results (2001), Additional Data Collection (2002), Barrier Wall RD
SWMU 2	Waste Lake 2	Soil and Worm samples collected in Summer 2006, additional samples were collected in May 2007. Evaluate potential exposure pathways, risks, and additional data needs (if any).	YES	Soil and groundwater	NA	Phase I (1993) & Phase II (1998)
SWMU 3	Waste Lake 3	In May 2006, sampling of the soil cap to collect analytical, vertical permeability and lithological data.	YES	Soil and groundwater	NA	Phase I (1993) & Phase II (1998), IM Work Plan (1998), IMs WL- 1 & WL-3 (1999), Evaluation of Need for IMs (2001) Soil Cap Samping Program Memo (2006)
SWMU 4	Old Brine Sludge Landfill Area	In May 2006, sampling of the soil cap to collect analytical, vertical permeability and lithological data.	YES	Soil and groundwater	NA	Phase I (1993) & Phase II (1998), Brine Sludge Landfill Assessment (1983), Evaluation of Need for IMs (2001) Soil Cap Samping Program Memo (2006)
SWMU 5	New Brine Sludge Landfill Area	Lined and capped unit. Ongoing groundwater monitoring under DNREC permit (renewed Feb 18 2005)	YES	Groundwater	NA	Phase I (1993), NBSL Post-closure Permit (2005)
SWMU 6	Storm Water Drainage Pond and Outfall 003	Area re-worked during modifications to Outfall 003. Confirmation sampling completed in May 2007 and included Outfall 003 sediment and surface water sampling.	YES	Soil, Sediment and Surface Water	NA	Phase I (1993) & Phase II (1998), Additional Sampling Work Plan (2007). Summary of Activities Report (November 2007), Additional Data Collection Report (January 2008).
SWMU 7	KCL Backwash Unit	Within Barrier Wall. Excavation Procedure. No pathways. Draft section of CMS Report for this SWMU submitted to EPA, January 2008.	NO	NO	Decommissioned in 2005; Demolished in 2006	RFA (1986), Background Data Review Report (1989). Draft CMS Section (January 2008)
SWMU 8	PCB Storage Bin	Within Barrier Wall. Excavation Procedure. No pathways. Draft section of CMS Report for this SWMU submitted to EPA, January 2008.	NO	NO	Decommissioned and Demolished in 2007	RFA (1986), Background Data Review Report (1989). Draft CMS Section (January 2008)
SWMU 9	Carbon Tetrachloride Area	Within Barrier Wall. Excavation Procedure. Tank removed (1994). No pathways. Draft section of CMS Report for this SWMU submitted to EPA, January 2008.	YES	Soil and groundwater	Decommissioned in 1992, partially Demolished	Phase II (1998), Carbon Tetrachloride Investigation (1994). Draft CMS Section (January 2008)
SWMU 10	Container Storage Area	Within Barrier Wall. Excavation Procedure. No pathways. Draft section of CMS Report for this SWMU submitted to EPA, January 2008.	NO	NO	YES	RFA (1986), Background Data Review Report (1989). Draft CMS Section (January 2008)
SWMU 11	Former Mercury Retort Tanks	Within Barrier Wall. Excavation Procedure. No pathways. Draft section of CMS Report for this SWMU submitted to EPA, January 2008.	YES	Soil	Decommissioned and Demolished in 1992	RFA (1986), Background Data Review Report (1989). Draft CMS Section (January 2008)
SWMU 12	Chemfix Test Unit Area	Evaluate need for final remedy. Soil characterization sampling conducted in May 2007.	YES	Soil and Groundwater	NA	Phase I (1993) & Phase II (1998). Evaluation of the need for IMs at the Chem Fix Test Unit (2001). Additional Sampling Work Plan (2007). Summary of Activities Report (November 2007), Additional Data Collection Report (January 2008).
SWMU 13	Wastewater Treatment Plant	Within Barrier Wall. Excavation Procedure. Soil excavation and offsite disposal for footprint of WWTP completed in 1996. No pathways.Draft section of CMS Report for this SWMU submitted to EPA, January 2008.	YES	Soil	YES	IMs Letter to EPA (1996). Draft CMS Section (January 2008)
SWMU 14	Surge Tank	Within Barrier Wall. Excavation Procedure. No pathways.Draft section of CMS Report for this SWMU submitted to EPA, January 2008.	NO	NO	YES	RFA (1986), Background Data Review Report (1989). Draft CMS Section (January 2008)
SWMU 15	Brine Sludge Pad & Tanks	Within Barrier Wall. Excavation Procedure. No pathways. Draft section of CMS Report for this SWMU submitted to EPA, January 2008.	NO	NO	YES	RFA (1986), Background Data Review Report (1989). Draft CMS Section (January 2008)
SWMU 16	Chlorination Pit	Within Barrier Wall. Excavation Procedure. No pathways. Draft section of CMS Report for this SWMU submitted to EPA, January 2008.	NO	NO	YES	RFA (1986), Background Data Review Report (1989)
SWMU 17	Dumpster Storage Area	Within Barrier Wall. Excavation Procedure. No pathways. Draft section of CMS Report for this SWMU submitted to EPA, January 2008.	NO	NO	Decommissioned in 1990	RFA (1986), Background Data Review Report (1989). Draft CMS Section (January 2008)
SWMU 18	Sand Blast Grit Area	Removal of grit, covering with asphalt, construction of concrete sand blasting pad with surrounding walls completed in 2001. SBGA no longer used.	YES	Surface soil	YES	Phase II (1998), Interim Design (2001), Post-Remediation Report (2002)
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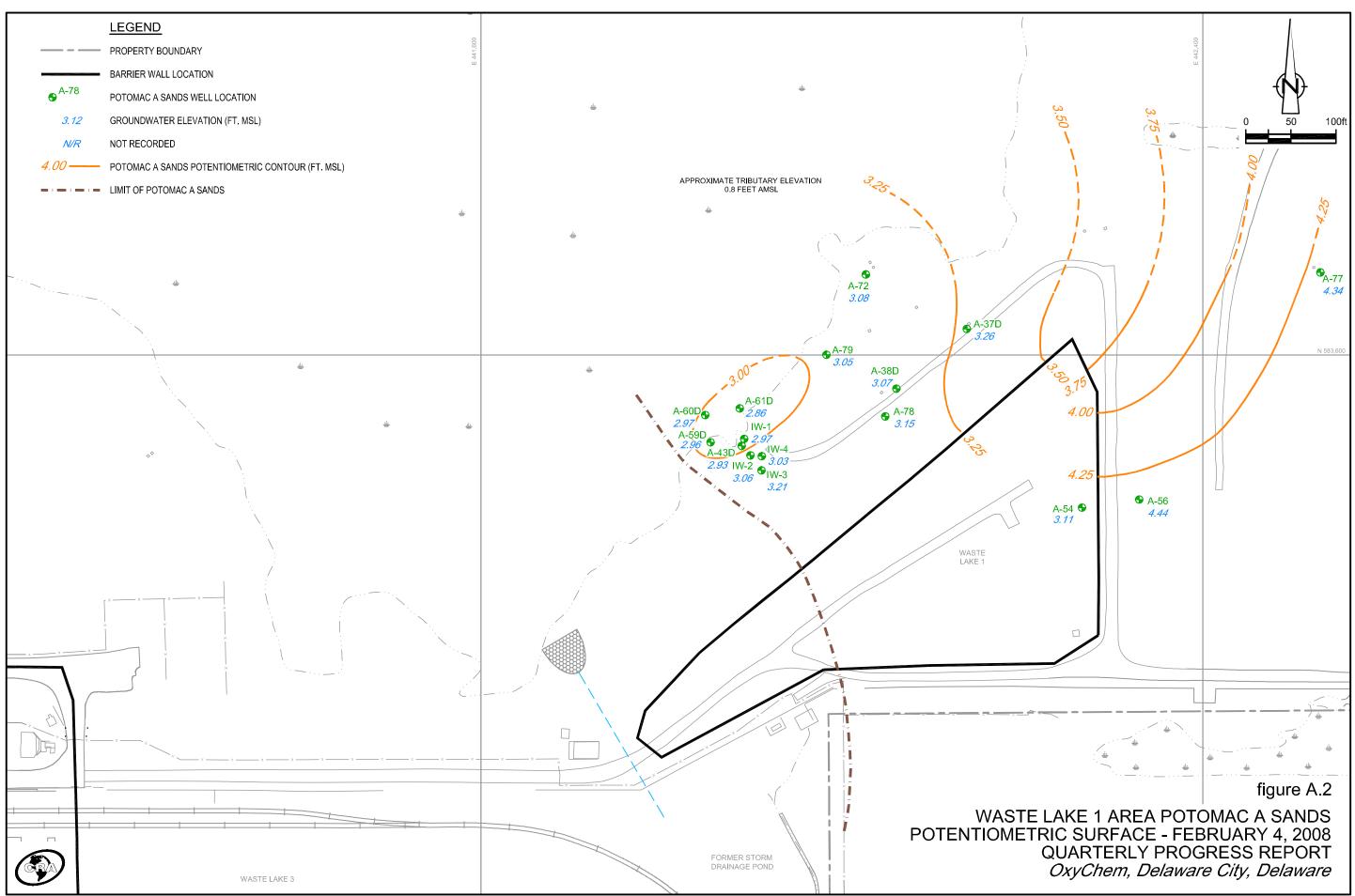
TABLE 1 SWMUs and Other Areas of Concern OxyChem Delaware City, Delaware Facility

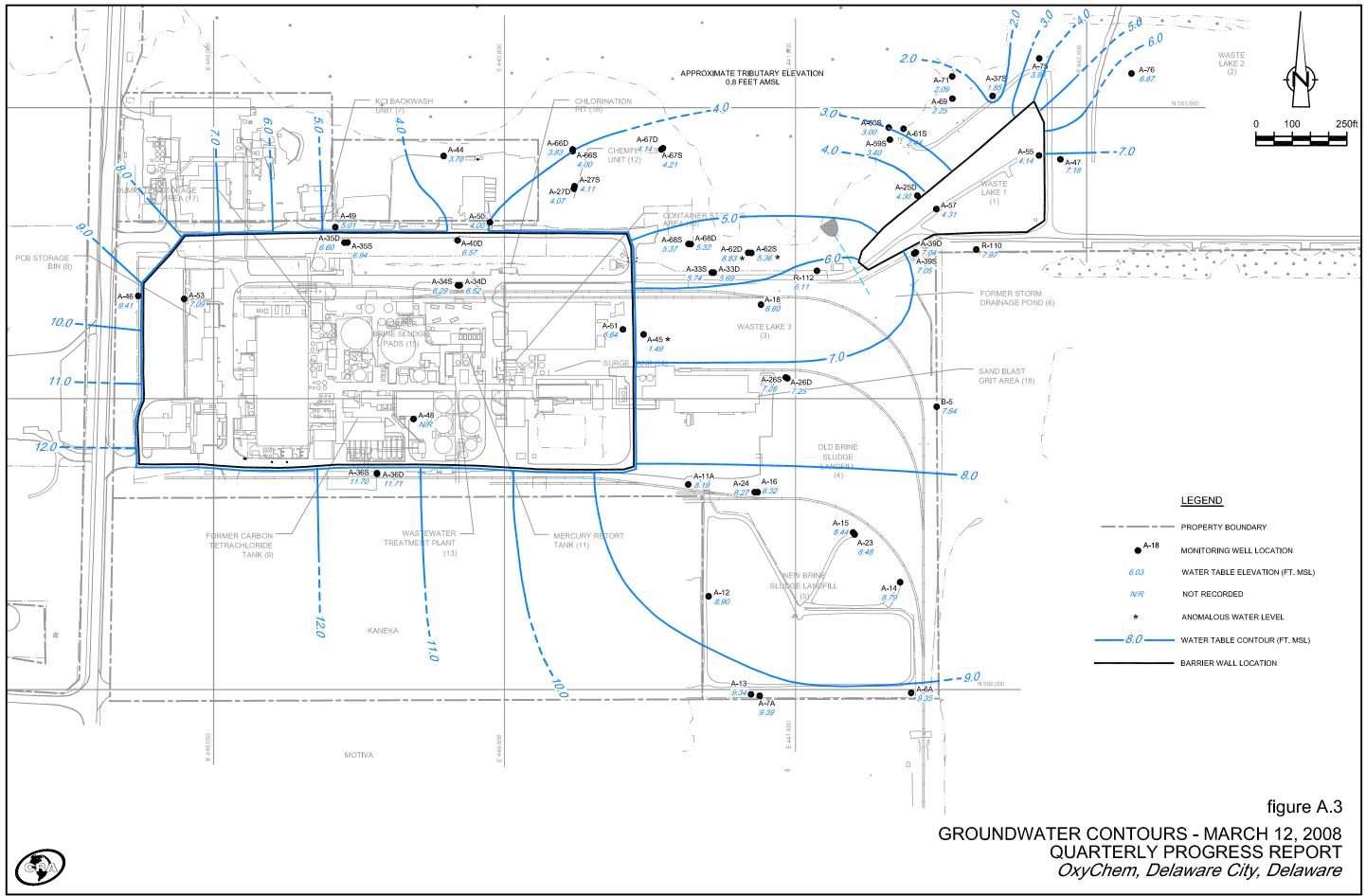
Number	SWMU/Other Area	Status	Does Data Exist?	If YES, what?	Will SWMU be decommissioned ?	Reference document(s)
AOC 1	Standard Chlorine Pipeline Area	Excavation of impacted material removed, spoils placed on WL-1 and capped completed in 2004. Ongoing groundwater monitoring.	YES	Soil and groundwater	NA	Phase I (1993) & Phase II (1998), Additional Sampling Work Plan (2001), Interim Measures Design (2002), Interim Measures Report (2003), Post-Construction Report (2005)
AOC 2	Deep Potomac Sands	Ongoing groundwater monitoring.	YES	Groundwater (A-17)	NA	Phase II (1998), Aquifer Connection Study (1983), Potomac Work Plan (1998)
AOC 3	Red Lion Creek	RLC will be addressed in Eco RA report. No reccomended remedial action.	YES	Surface water, sediment, piezometer, pore water	NA	Phase II (1998), Work Plan Memos (2004), Tributary Report (2005)
AOC 4	Marsh Area Downgradient of Waste Lake 2	As part of WL-2, evaluate potential exposure pathways, risks, and additional data need (if any).	YES	Surface water, sediment, piezometer	NA	Phase II (1998)
	Process Area	Excavation Procedure currently implemented as per EPA-approved procedure. Evaluate Final Remedy for future use. Additional analytical and geotechnical soil sampling performed June 2007.	YES	Soil and groundwater	NA	Phase II (1998), Hg Impacted Soils Encountered during recent construction projects (1993), Implementation of Procedure (see excavation procedure eDAT). Additional Sampling Work Plan (2007), Additional Data Collection Report (January 2008).
	Stormwater Drainage Channels and Outfalls	Removal of sediment in open channels and piped portions completed in 2001 and 2002.	YES	Soil	NA	Phase II (1998), Results of Ditch Sediment Analysis (1998), IM Design Report (2001), Post-Remediation Report (2002).
AOC 7	Groundwater in the Vicinity of Waste Lake 1	Ongoing groundwater monitoring. Potential final remedies presented in the Draft Groundwater Feasibility Study, dated June 2007.		Soil and groundwater	NA	Several prior to 1990, Phase I (1993) & Phase II (1998), WL-1 DNAPL Report (2003), WL-1 DNAPL Memo (2004), WL-1 DNAPL 3-month Work Plan (2005), Draft Groundwater Feasibility Study (2007)
AOC 8	Tributary	Tributary will be addressed in Eco RA report.	YES	Surface water, sediment, piezometer	NA	Phase II (1998), Work Plan Memos (2004), Tributary Report (2005)
AOC 9	Groundwater in the Vicinity of the Process Area	Barrier wall and collection trench constructed in 2003. Ongoing operations and groundwater monitoring. Potential final remedies presented in the Draft Groundwater Feasibility Study, dated June 2007.	YES	Groundwater	NA	Phase I (1993) & Phase II (1998), Additional Data Collection (2002), Barrier Wall RD Report (2002), Post-Closure Report (2005), Draft Groundwater Feasibility Study (2007)
AOC 10	Former Lay Down Area	Additional soil sampling conducted May 2007, including a seep water sample. Draft section of CMS Report for AOC 10 submitted to EPA, January 2008.	YES	Groundwater (A-66 thru A-68), Soil, Seep Water	NA	Former Laydown Area Soil Sampling Memo (September 2006). Additional Sampling Work Plan (2007). Summary of Activities Report (November 2007), Additional Data Collection Report (January 2008). Draft CMS Section (January 2008)
AOC 11	SD - 6	Additional sampling results indicated no risk; no reccomended remedial action.	YES	Surface water, sediment, piezometer	NA	Phase II (1998), Work Plan Memos (2004), Tributary Report (2005)
AOC 12	Marsh Area between AOC 1 and AOC 8	Additional Investigation and Sampling performed in May, June and July 2007 for preparation of the CMS.	YES	Soil, Groundwater and Pore Water	NA	Phase I (1993) & Phase II (1998), Additional Sampling Work Plan (2001), Interim Measures Design (2002), Interim Measures Report (2003), Post-Construction Report (2005), Additional Work Plan (July 2007) Summary of Activities
	Free-Phase DNAPL Area	Ongoing groundwater monitoring and DNAPL removal.	YES	Soil and groundwater		Several prior to 1990, Phase I (1993) & Phase II (1998), WL-1 DNAPL Report (2003), WL-1 DNAPL Memo (2004), WL-1 DNAPL 3-month Work Plan (2005). Draft Groundwater Feasibility Study (2007)
AOC 14	Surface Runoff to the Tributary	Additional Sampling of soil and sediment conducted in May 2007 for preparation of the CMS.	YES	Soil and Sediment	NA	Additional Sampling Work Plan (2007). Summary of Activities Report (November 2007), Additional Data Collection Report (January 2008).

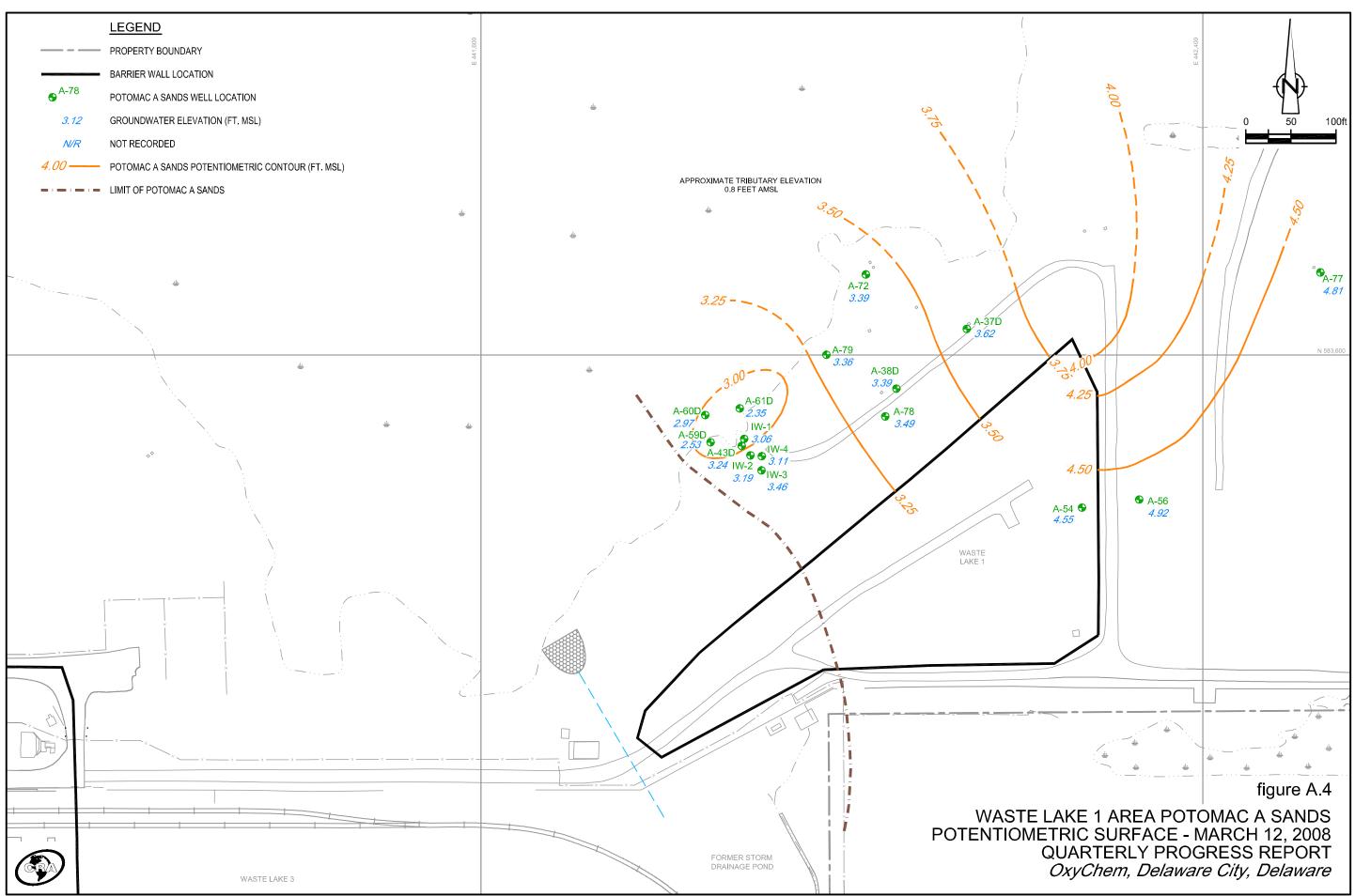
Notes: Requirements for HHRA and ECO RA based on the unit itself, not potential as a source to other areas.

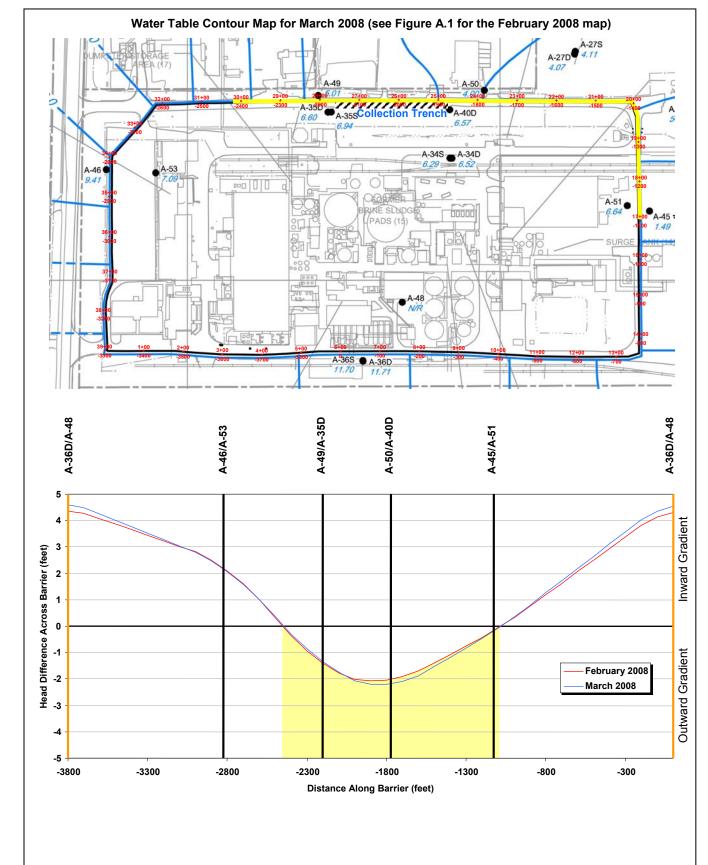






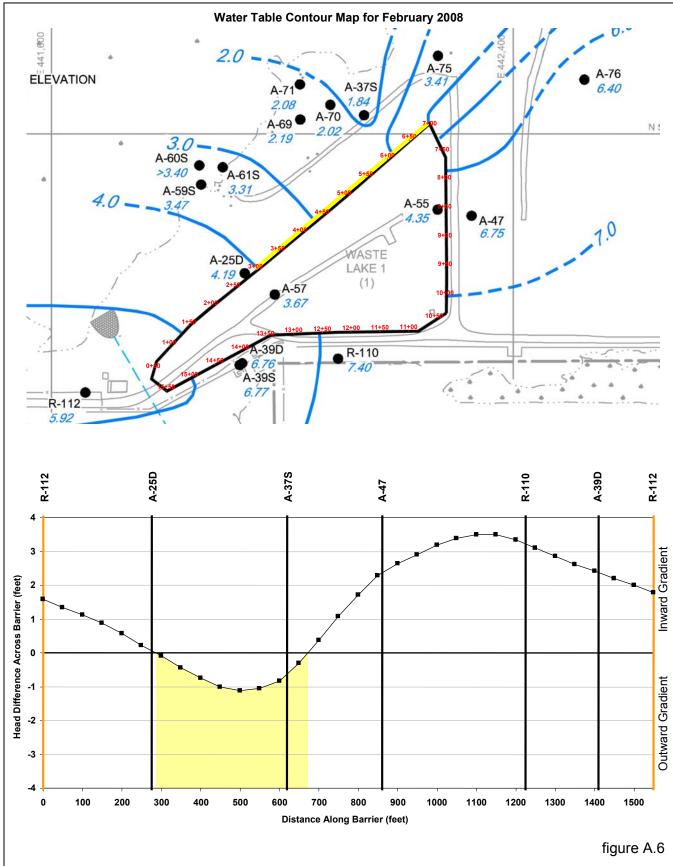






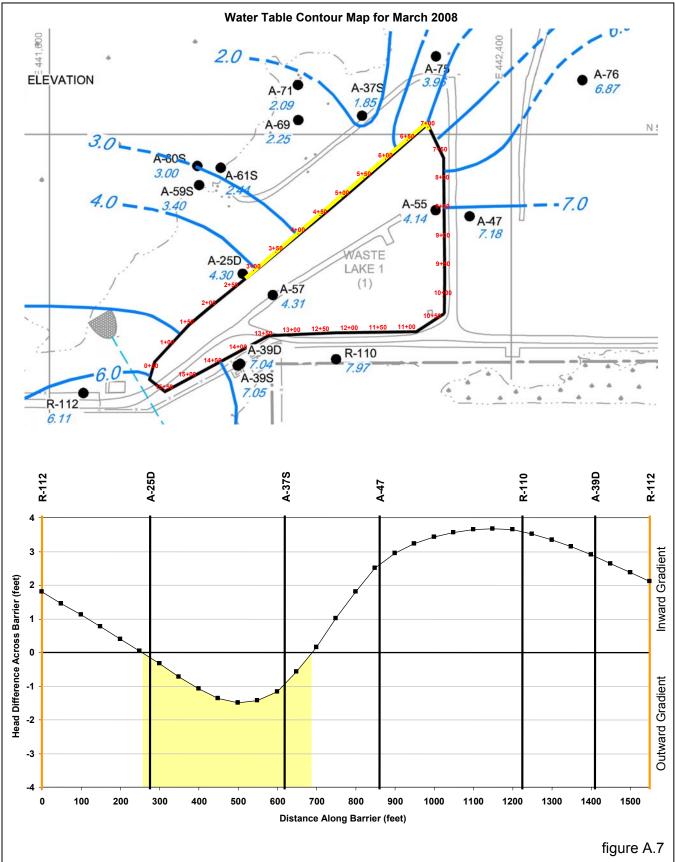






HEAD DIFFERENCE ACROSS THE WL-1 BARRIER
FEBRUARY 2008
1ST QUARTER PROGRESS REPORT
OxyChem, Delaware City, Delaware





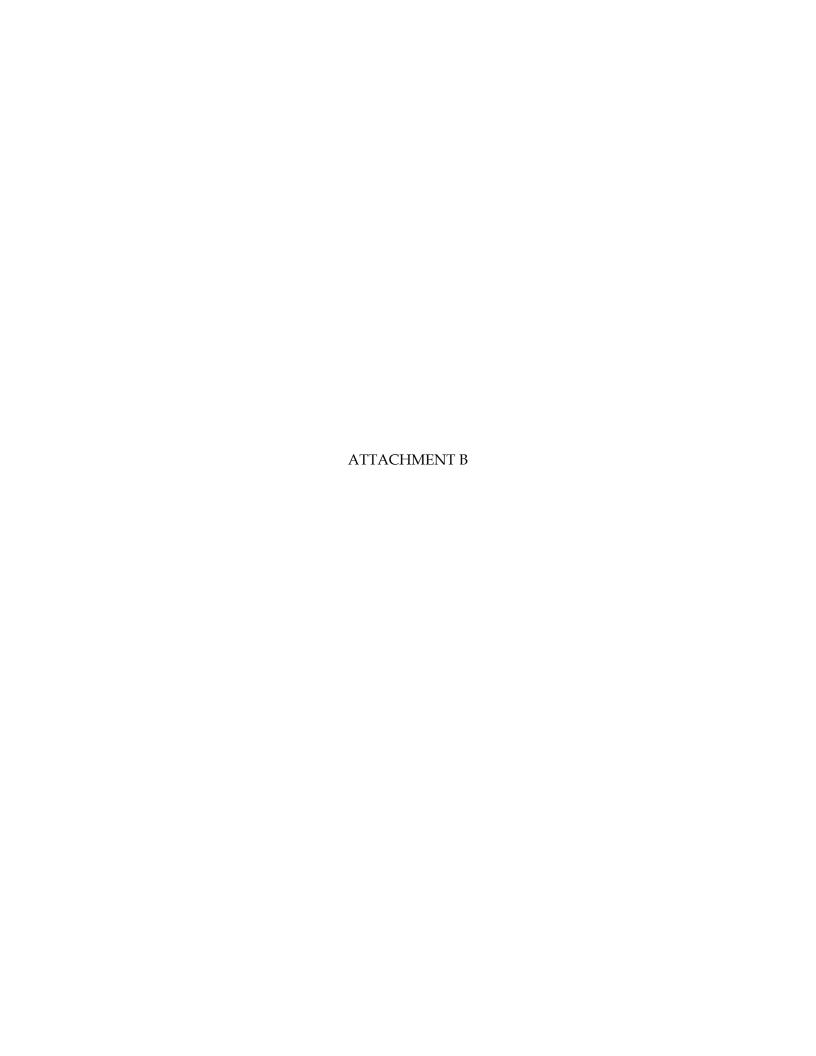
HEAD DIFFERENCE ACROSS THE WL-1 BARRIER

MARCH 2008

1ST QUARTER PROGRESS REPORT

OxyChem, Delaware City, Delaware





Sample Location:					A-27D	A-27S	A-44	A-49	A-50	A-65	A-66D	A-66S
Sample ID:	1			G	W-7462-020508-MJW-04	W-7462-020608-MJW-00	06W-7462-020508-MJW-02	W-7462-020508-MJW-0	W-7462-020508-MIW-	05W-7462-020708-016	W-7462-020608-MJW-001	W-7462-020608-MJW
Sample Date:					2/5/2008	2/6/2008	2/5/2008	2/5/2008	2/5/2008	2/7/2008	2/6/2008	2/6/2008
,		Ecological	Federal	Criteria								
Parameters			MCLs or RBCs									
		a	b	Jr.								
Volatile Organic Compounds		-	_									
1,1,1-Trichloroethane	ug/L	410	200	MCL	-		-	-	_	1 U	-	-
1,1,2,2-Tetrachloroethane	ug/L	2400	0.0527	RBC	-	-	-	-	_	1 U	-	-
1,1,2-Trichloroethane	ug/L	87	5	MCL	-	-	-	-	-	1 U	-	-
1,1-Dichloroethane	ug/L	740	896.5	RBC	-	-	-	-	-	1 U	-	-
1,1-Dichloroethene	ug/L	25	7	MCL	-	-	-	-	-	1 U	-	-
1,2,4-Trichlorobenzene	ug/L	50	70	MCL	-		-	-	-	27	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	-	0.2	MCL	-	-	-	-	-	1 U	-	-
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	180	0.05	MCL	-	-	-	-	_	1 U	-	-
1,2-Dichlorobenzene	ug/L	14	600	MCL	-		-	-	_	100 ^a	-	_
1,2-Dichloroethane	ug/L	980	5	MCL		-	-	-	-	1 U		
1,2-Dichloropropane	ug/L	525	5	MCL		-	-	-	-	1 U		
1,3-Dichlorobenzene	ug/L	52	18.25	RBC	-	-		-	_	9		
1,4-Dichlorobenzene	ug/L	16	75	MCL		-	-	-	_	110 ^{ab}	-	
				RBC					_			
2-Butanone (Methyl Ethyl Ketone) 2-Hexanone	ug/L ug/L	14000 99	6968	RBC -	-	-	-	-	-	5 U 5 U	-	-
2-riexanone 4-Methyl-2-Pentanone (Methyl Isobutyl Keton		170	6278	RBC					_	5 U		
4-Metnyi-2-Pentanone (Metnyi Isobutyi Keton Acetone		1500	5475	RBC	-	-	-	-	-	5 U	-	-
	ug/L									62 ^b		
Benzene	ug/L	98	5	MCL	-	•	-	-	-		-	-
Bromodichloromethane	ug/L	110	0.17	RBC	-	-	-	-	-	1 U	-	-
Bromoform	ug/L	320	8.48	RBC	-	-	-	-	-	1 U	-	-
Bromomethane (Methyl Bromide) Carbon disulfide	ug/L	110 0.92	8.52 1042	RBC RBC	-	-	-	-	-	1 U 1 U	-	-
	ug/L				-	-	-	-	-		-	-
Carbon tetrachloride	ug/L	9.8	5	MCL	-	-	-	-	-	1 U	-	-
Chlorobenzene	ug/L	64	100	MCL	-	-	-	-	-	350 ^{ab}	-	-
Chloroethane	ug/L	-	3.64	RBC	-	-	-	-	-	1 U	-	-
Chloroform (Trichloromethane)	ug/L	28	0.155	RBC	-	-	-	-	-	1 U	-	-
Chloromethane (Methyl Chloride)	ug/L	5500	190	RBC	-	-	-	-	-	1 U	-	-
cis-1,2-Dichloroethene	ug/L	590	70	MCL	-	-	-	-	-	1 U	-	-
cis-1,3-Dichloropropene	ug/L	0.055	-	-	-	-	-	-	-	1 U	-	-
Cyclohexane	ug/L	-	12410	RBC	-	-	-	-	-	1 U	-	-
Dibromochloromethane	ug/L	110	0.126	RBC	-	-	-	-	-	1 U	-	-
Dichlorodifluoromethane (CFC-12)	ug/L	110	347	RBC	-	•	-	-	-	1 U	-	-
Ethylbenzene	ug/L	110	700	MCL	-	-	-	-	-	1 U	-	-
Isopropylbenzene	ug/L	-	658	RBC	-	-	-	-	-	1 U	-	-
Methyl acetate	ug/L	-	6083	RBC	-	-	-	-	-	1 U	-	-
Methyl cyclohexane	ug/L	-	6278	RBC	-	-	-	-	-	1 U	-	-
Methyl Tert Butyl Ether	ug/L	1500	2.64	RBC	-	-	-	-	-	1 U	-	-
Methylene chloride	ug/L	1500	5	MCL	-	-	-	-	-	1 U	-	-
Styrene	ug/L	241	100	MCL	-	-	-	-	-	1 U	-	-
Tetrachloroethene	ug/L	60	5	MCL	-	-	-	-	-	1 U 1 U	-	-
Toluene	ug/L	94	1000 100	MCL MCL	-	-	-	-	-	1 U	-	-
trans-1,2-Dichloroethene	ug/L	1160 244	100		-	-	-	-	_	1 U	-	
trans-1,3-Dichloropropene Trichloroethene	ug/L	47	5	- MCL	-	-	-	-	-	1 U	-	-
Trichlorofluoromethane (CFC-11)	ug/L ug/L	110	1288	RBC					-	1 U	-	
Trifluorotrichloroethane (Freon 113)	ug/L ug/L	- 110	59375	RBC	-	-	-	-	-	1 U	-	
Vinyl chloride	ug/L	930	2	MCL	-	-	-	-	-	1 U	-	-
Xylene (total)	ug/L	13	10000	MCL	-	-	-	-	-	1 U	-	-

Sample Location:		ı		1	A-27D	A-27S	A-44	A-49	A-50	A-65	A-66D	A-66S
Sample ID:				C							W-7462-020608-MJW-00	
Sample Date:					2/5/2008	2/6/2008	2/5/2008	2/5/2008	2/5/2008	2/7/2008	2/6/2008	2/6/2008
		Ecologica		Criteria	1							
Parameters	Units		MCLs or RB	Cs Type								
		a	b									
Metals												
Aluminum	ug/L	87	36500	RBC	-	-	-	-	-	1070 K ^a	-	-
Aluminum (Dissolved)	ug/L	87	36500	RBC	-	-	-	-	-	9.8 B	-	•
Antimony	ug/L	30	6	MCL	-	-	-	-	-	2.6 J	-	-
Antimony (Dissolved)	ug/L	30	6	MCL	-	-	-	-	-	2.3 J	-	-
Arsenic	ug/L	150	10	MCL	-	-	-	-	-	27.8 ^b	-	
Arsenic (Dissolved)	ug/L		10	MCL	-	-	-	-	-	13.5°	-	
Barium	ug/L	438	2000	MCL	_	_	-	_	_	521ª	_	-
Barium (Dissolved)	ug/L		2000	MCL	-	-	-	-	-	485ª	_	-
,			4	MCL					-	0.18 U	-	-
Beryllium Beryllium (Dissolved)	ug/L ug/L		4	MCL	-	-	-	-	-	0.18 U	-	-
Cadmium (Dissolved)			5	MCL	-	-	-	-	-	1.8 B ^a	-	-
	ug/L									1.6 B ^a		
Cadmium (Dissolved)	ug/L	0.25	5	MCL	-	-	-	-	-		-	-
Calcium	ug/L		-	-	-	-	-	-	-	53300	-	-
Calcium (Dissolved)	ug/L		-	-	-	-	-	-	-	50500	-	-
Chromium Total	ug/L	11	100	MCL	-	-	-	-	-	24.8ª	-	•
Chromium Total (Dissolved)	ug/L		100	MCL	-	-	-	-	-	0.57 U	-	•
Cobalt	ug/L		730	RBC	-	-	-	-	-	2.8 J	-	-
Cobalt (Dissolved)	ug/L		730	RBC	-	-	-	-	-	2.1 J	-	-
Copper	ug/L	9	1460	RBC	-	-	-	-	-	6.6 B	-	-
Copper (Dissolved)	ug/L		1460	RBC	-	-	-	-	-	0.90 J	-	•
Iron	ug/L		10950	RBC	-	-	-	-	-	91800 ^{ab}	-	-
Iron (Dissolved)	ug/L	320	10950	RBC	-	-	-	-	-	77600 ^{ab}	-	-
Lead	ug/L	2.5	15	-	-	-	-	-	-	1.4 U	-	-
Lead (Dissolved)	ug/L	2.5	15	-	-	-	-	-	-	1.4 U	-	
Magnesium	ug/L	-	-	-	-	-	-	-	-	18100	-	
Magnesium (Dissolved)	ug/L	-	-	-	-	-	-	-	-	17100	-	-
Manganese	ug/L	1300	730	RBC	-	-	-	-	-	738 ^b	-	-
Manganese (Dissolved)	ug/L	1300	730	RBC	-	-	-	-	-	679	-	
Mercury	ug/L	0.77	2	MCL	24.3 ^{ab}	0.89ª	5.4 ^{ab}	16.0 ^{ab}	28.1 ^{ab}	0.51	41.6 ^{ab}	3.1 ^{ab}
Mercury (Dissolved)	ug/L		2	MCL	25.0 ^{ab}	0.26	1.0ª	3.7 ^{ab}	16.4 ^{av}	0.14 J	15.6 ^{ab}	0.14 J
Nickel	ug/L		730	RBC	-	0.20	-	-	-	10.6 J	-	-
Nickel (Dissolved)	ug/L		730	RBC	-	-	-		-	3.1 B	-	-
Potassium	ug/L		-	-	-	-	-	-	-	5190	-	-
Potassium (Dissolved)	ug/L		_	-	-	-	-		-	4800 J	-	
Selenium	ug/L		50	MCL	-	-	-	-	-	2.4 U	-	-
Selenium (Dissolved)	ug/L		50	MCL	-	-	-	-	-	2.4 U	-	-
Silver	ug/L	0.36	183	RBC	-	-	-	-	-	0.41 U	-	-
Silver (Dissolved)	-		183	RBC	-	-			_	1.0 B ^a	_	
Sodium	ug/L ug/L	-	-	- KBC	-	-	-	-	-	31000	-	-
Sodium (Dissolved)	ug/L ug/L		-	-	-	-	-	-	-	30400	-	-
										2.3 U		
Thallium	ug/L	6	2	MCL	-	-	-	-	-		-	-
Thallium (Dissolved)	ug/L	6	2	MCL	-	-	-	-	-	3.0 J ^B	-	-
Vanadium	ug/L		37	RBC	-	-	-	-	-	11.4 J	-	-
Vanadium (Dissolved)	ug/L		37	RBC	-	-	-	-	-	2.0 J	-	•
Zinc	ug/L		10950	RBC	-	-	-	-	-	22.6 B	-	•
Zinc (Dissolved)	ug/L	118.1	10950	RBC	-	-	-	-	-	14.0 B	-	ı

Sample Location:					A-67D	A-67S	A-69	A-70	A-70	A-71	A-75	A-77
Sample ID:				-		\$W-7462-020608-MJW-01						
Sample Date:					2/6/2008	2/6/2008	2/6/2008	2/7/2008	2/7/2008	2/7/2008	2/7/2008	2/7/2008
Sumple Bute.		Ecological	Federal	Criteria	2/0/2000	27072000	2/0/2000	2/1/2000	(Duplicate)	2/1/2000	2/1/2000	2/1/2000
Parameters			MCLs or RBCs						(Dupiteute)			
1 urumeters	uniis	a	b	Турс								
Volatile Organic Compounds		а	b									
1,1,1-Trichloroethane	ug/L	410	200	MCL	-	_	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	2400	0.0527	RBC	_	_	1 U	1 U	1 U	1 U	1 U	1 U
1.1.2-Trichloroethane	ug/L	87	5	MCL	-	-	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	-	896.5	RBC	-	-	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	25	7	MCL	-	-	1 U	1 U	1 U	1 U	1 U	1 U
1.2.4-Trichlorobenzene	ug/L	50	70	MCL	-	_	330 ^{ab}	200 ^{ab}	270 ^{ao}	130 ^{ao}	3900 ^{ab}	1 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	-	0.2	MCL	-	_	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L		0.05	MCL	-	-	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	14	600	MCL	-	-	3200 ^{ab}	2100 ^{ab}	2600 ^{ab}	1000 ^{ab}	19000 ^{ab}	6
1,2-Dichloroethane	ug/L		5	MCL	-	-	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L		5	MCL	-	-	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	ug/L	52	18.25	RBC	-		240 ^{ab}	270 ^{ab}	330 ^{ab}	190 ^{ab}	1700 ^{ab}	1
<u> </u>	O.		75			-	6100 ^{ab}	2900 ^{ab}	3600 ^{ab}	4100 ^{ab}	21000 ^{ab}	12
1,4-Dichlorobenzene	ug/L	16		MCL	-							
2-Butanone (Methyl Ethyl Ketone)	ug/L	14000	6968	RBC	-	-	5 U 5 U	5 U 5 U	5 U 5 U	5 U 5 U	13 K 5 U	5 U 5 U
2-Hexanone	ug/L		- (270	_								
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone			6278 5475	RBC RBC	-	-	5 U 5 U	5 U 5 U	5 U 5 U	5 U 5 U	3 K 12 K	5 U 5 U
Acetone	ug/L				-	-	830 ^{ab}	2900 ^{ab}	3400 ^{ab}	570 ^{ab}	75000 ^{ab}	
Benzene	ug/L	98	5	MCL	-	-			1 11	7 7		5
Bromodichloromethane	ug/L	110	0.17	RBC	-	-	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	320	8.48	RBC	-	-	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane (Methyl Bromide) Carbon disulfide	ug/L	110 0.92	8.52 1042	RBC RBC	-	-	1 U 1 U	1 U 1 U	1 U 1 U	1 U	1 U 1 U	1 U 1 U
	ug/L						21 ^{ab}					
Carbon tetrachloride	ug/L	9.8	5	MCL	-	-		1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	64	100	MCL	-	-	8700 ^{ab}	7900 ^{ab}	9300 ^{ab}	3000 ^{ab}	130000 ^{ab}	42
Chloroethane	ug/L	-	3.64	RBC	-	-	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform (Trichloromethane)	ug/L	28	0.155	RBC	-	-	3 ^b	3 ^b	3 ^b	2 ^b	1 U	1 U
Chloromethane (Methyl Chloride)	ug/L	5500	190	RBC	-	-	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	ug/L	590	70	MCL	-	-	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	ug/L		-	-	-	-	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane	ug/L	-	12410	RBC	-	-	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	ug/L	110	0.126	RBC	-	-	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane (CFC-12)	ug/L	110	347	RBC	-	-	1 U	1 U	1 U	1 U	1 U	1 U 1 U
Ethylbenzene	ug/L	110	700 658	MCL RBC	-	-	1 U 1 U	3 1 U	1 U 1 U	1 U 1 U	1 U 1 U	1 U
Isopropylbenzene	ug/L		6083		-	-			1 U	1 U		1 U
Methyl acetate Methyl cyclohexane	ug/L ug/L	-	6278	RBC RBC	-	-	1 U 1 U	1 U 1 U	1 U	1 U	1 U 6 K	1 U
Methyl Tert Butyl Ether	ug/L	-	2.64	RBC	-	-	1 U	1 U	1 U	1 U	1 U	1 U
Methylene chloride	ug/L		5	MCL	-		1 U	1 U	1 U	1 U	1 U	1 U
Styrene	ug/L	241	100	MCL	-	-	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	ug/L	60	5	MCL	-	-	5	3	3	1 U	3 K	1 U
Toluene	ug/L	94	1000	MCL	-	-	1 U	1	1 U	1 U	42 K	1 U
trans-1,2-Dichloroethene	ug/L		1000	MCL	-	-	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	244	-	-	-	-	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	ug/L	47	5	MCL	-	-	1 U	3	3	1	1 U	1 U
Trichlorofluoromethane (CFC-11)	ug/L	110	1288	RBC	-	-	1 U	1 U	1 U	1 U	1 U	1 U
Trifluorotrichloroethane (Freon 113)	ug/L	-	59375	RBC	-	-	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	ug/L	930	2	MCL	-	-	14 ^b	28 ^b	26 ^b	24 ^b	4 K ^b	1 U
Xylene (total)	ug/L		10000	MCL	-		1 U	5	2	1 U	2 K	1 U
Ayiere (total)	ug/ L	1.5	10000	MICL	-	-	10		- 4	10	2 IX	10

Sample Location:			1		A-67D	A-67S	A-69	A-70	A-70	A-71	A-75	A-77
Sample ID:				_	W-7462-020608-MJW-009							
,				e	,	,						
Sample Date:		г 1 .		a	2/6/2008	2/6/2008	2/6/2008	2/7/2008	2/7/2008	2/7/2008	2/7/2008	2/7/2008
n ,		Ecologica		Criteria					(Duplicate)			
Parameters	Units		MCLs or RBC	s Type								
Metals		a	ь									
Aluminum	ug/L	87	36500	RBC	_		4730 K ^a	1750 K ^a	1470 K ^a	2920 K ^a	963 K ^a	2700 K ^a
Aluminum (Dissolved)	ug/L ug/L	87	36500	RBC	-		8.8 U	16.3 B	19.2 B	17.5 B	14.1 B	14.4 B
Antimony	ug/L	30	6	MCL	-		2.3 U	2.3 U	2.3 U	2.3 U	7.2 J ^b	3.9 [
Antimony (Dissolved)	ug/L ug/L	30	6	MCL	-		2.3 U	2.3 U	2.3 U	2.3 U	5.2 [3.2 [
,		150	10				5.1 [1.8 U	1.8 U	4.5 [27.8 ^b	14.0 ^b
Arsenic	ug/L			MCL	-	-				,	12.4 ^b	
Arsenic (Dissolved)	ug/L	150	10	MCL	-	-	1.8 U	1.8 U	1.8 U	1.8 U		7.4 J
Barium	ug/L	438	2000	MCL	-	-	40.5 J	7.0 J	6.5 J	19.9 J	501ª	325
Barium (Dissolved)	ug/L	438	2000	MCL	-	-	25.9 J	4.8 J	4.6 J	14.1 J	493°	321
Beryllium	ug/L	2.4	4	MCL	-	-	0.81 B	0.20 B	0.18 U	0.29 B	0.18 U	0.18 U
Beryllium (Dissolved)	ug/L	2.4	4	MCL	-	-	0.18 U	0.18 U				
Cadmium	ug/L	0.25	5	MCL	-	-	1.3 B ^a	0.32 U	0.32 U	0.32 U	7.1 ^{ab}	2.6 B ^a
Cadmium (Dissolved)	ug/L	0.25	5	MCL	-	-	0.32 U	0.32 U	0.32 U	0.32 U	5.6 ^{ab}	2.3 B ^a
Calcium	ug/L		-	-	÷	÷	88900	27600	27500	97900	93700	95000
Calcium (Dissolved)	ug/L	-	-	-	-	-	88600	27800	27100	102000	92900	95200
Chromium Total	ug/L	11	100	MCL	-	-	14.9ª	2.3 J	1.8 J	4.1 J	4.6 J	17.8ª
Chromium Total (Dissolved)	ug/L	11	100	MCL	-	-	0.93 B	0.60 B	0.57 U	0.83 B	0.84 B	0.57 U
Cobalt	ug/L	23	730	RBC	-	-	8.0 J	2.2 J	2.0 J	4.2 J	1.1 J	3.6 J
Cobalt (Dissolved)	ug/L	23	730	RBC	-	-	3.4 J	1.6 J	1.1 U	2.0 J	2.0 J	2.6 J
Copper	ug/L	9	1460	RBC	-	-	11.4 J ^a	4.5 B	3.7 B	9.4 J ^a	9.4 J ^a	9.7 J ^a
Copper (Dissolved)	ug/L	9	1460	RBC	-	-	0.87 U	0.87 U	0.87 U	0.87 U	2.9 J	0.94 J
Iron	ug/L	320	10950	RBC	-	-	30200 ^{ab}	5080°	4150°	10000°	243000 ^{ab}	134000 ^{ab}
Iron (Dissolved)	ug/L	320	10950	RBC	-	-	703ª	127 B	122 B	208	218000 ab	127000 ab
Lead	ug/L	2.5	15	-	_	_	6.1 B ^a	3.1 B ^a	2.8 B ^a	3.4 B ^a	1.4 U	1.4 U
Lead (Dissolved)	ug/L	2.5	15	-	-	-	1.4 U	1.4 U	1.4 U	1.4 U	6.9 U	6.9 U
Magnesium	ug/L	-	-	-	-	-	46000	29300	29800	47800	99000	29700
Magnesium (Dissolved)	ug/L	-	-	-	-	÷	45200	28300	28400	48700	96200	29700
Manganese	ug/L	1300	730	RBC	-	-	10500 ^{ab}	804 ^b	785 ^b	2840 ^{ab}	3850 ^{ab}	1040 ^b
Manganese (Dissolved)	ug/L	1300	730	RBC	_		10200 ^{ab}	799 ^b	757 ^b	2940 ^{ab}	3660 ^{ab}	1010 ^b
Mercury	ug/L	0.77	2	MCL	2.1 ^{ab}	0.57	70.6 ^{ab}	54.0 ^{ab}	33.2 ^{ab}	85,6 ^{ab}	0.66	0.43
Mercury (Dissolved)		0.77	2	MCL	0.66	0.10 [4.1 ^{ab}	10.4 ^{ab}	9.6 ^{ab}	5.5 ^{ab}	0.00 0.17 J	0.43
, ,	ug/L		730				10.8 [1.4 U	1.4 U			7.2 [
Nickel Nickel (Dissolved)	ug/L ug/L	52 52	730	RBC RBC	-	-	3.8 B	1.4 U	1.4 U	4.2 J 3.9 B	4.4 J 3.6 B	4.7 B
Potassium	ug/L ug/L	-	-	KBC -	-		34500	73400	75000	62300	13400	8810
Potassium (Dissolved)	ug/L ug/L	-	-	-	-	-	34100	71800	72000	57700	12900	8060
Selenium	ug/L ug/L	4.6	50	MCL	-		2.4 J	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U
Selenium (Dissolved)	ug/L	4.6	50	MCL	-	_	2.4 U	2.4 U				
Silver	ug/L	0.36	183	RBC	-	-	13.4ª	0.85 B ^a	1.2 B ^a	5.7 J ^a	3.1 J ^a	4.7 J ^a
Silver (Dissolved)	ug/L	0.36	183	RBC	-		2.0 B ^a	0.69 B ^a	0.61 B ^a	1.3 B ^a	2.1 B ^a	0.81 B ^a
Sodium	ug/L ug/L	0.36	183	KDC -	-	-	226000	234000	239000	280000	710000	54000
Sodium (Dissolved)	ug/L ug/L	-	-	-	-		228000	231000	231000	276000	706000	56300
Thallium	ug/L ug/L	6	2	MCL	-	-	2.3 U	2.3 U	2.3 U	2.3 U	5.6 J ^b	2.3 U
						<u> </u>	3.1 J ^b	2.3 U		2.3 U	5.3 J ^b	4.5 J ^b
Thallium (Dissolved)	ug/L	6	2	MCL	-	-	,		2.3 U			,
Vanadium	ug/L	12	37	RBC	-	-	22.6 J ^a	5.8 J	4.6 J	8.6 J	8.6 J	36.6 J ^a
Vanadium (Dissolved)	ug/L	12	37	RBC	-	-	0.89 U	0.89 U	0.89 U	0.89 U	5.4 J	2.7 J
Zinc	ug/L	118.1	10950	RBC	-	-	21.2 B	16.6 B	14.3 B	22.6 B	5.6 B	84.5
Zinc (Dissolved)	ug/L	118.1	10950	RBC	-	-	3.9 U	7.0 B	16.1 B	16.4 B	5.1 B	26.0 B

Sample Location:			STATION-G	STATION-G	STATION-G	STATION-G	STATION-H	STATION-H	STATION-H	STATION-I	STATION-I	STATION-I
Sample ID:										SW-7462-020808-MJW-007		
Sample Date:			2/8/2008	2/8/2008	3/6/2008	3/6/2008	2/8/2008	3/6/2008	3/6/2008	2/8/2008	3/6/2008	3/6/2008
Parameters	Units	SW-1		(Duplicate)								
Volatile Organic Compounds												
1,1,1-Trichloroethane		410	1 U	1 U	2 U	-	1 U	2 U	-	1 U	2 U	-
1,1,2,2-Tetrachloroethane	ug/L		1 U	1 U	2 U	-	1 U	2 U	-	1 U	2 U	-
1,1,2-Trichloroethane	ug/L	87	1 U	1 U	2 U	-	1 U	2 U	-	1 U	2 U	-
1,1-Dichloroethane		740	1 U	1 U	2 U	-	1 U	2 U	-	1 U	2 U	-
1,1-Dichloroethene	ug/L	25	1 U	1 U	2 U	-	1 U	2 U	-	1 U	2 U	-
1,2,4-Trichlorobenzene	ug/L	50	1 U	1 U	2	-	1 U	2	-	7.4	7	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	-	1 U	1 U	2 U	-	1 U	2 U	-	1 U	2 U	-
1,2-Dibromoethane (Ethylene Dibromide)		180	1 U	1 U	2 U	-	1 U	2 U	-	1 U	2 U	-
1,2-Dichlorobenzene	ug/L	14	1 U	1 U	3	-	3.1	11	-	38	38	-
1,2-Dichloroethane		980	1 U	1 U	2 U	-	1 U	2 U	-	1 U	2 U	-
1,2-Dichloropropane	O,	525	1 U	1 U	2 U	-	1 U	2 U	-	1 U	2 U	-
1,3-Dichlorobenzene	ug/L	52	1 U	1 U	1 J	-	1 U	2	-	9.0	8	-
1,4-Dichlorobenzene	ug/L	16	1 U	1 U	2 B	-	2.7	6	-	33	23	-
2-Butanone (Methyl Ethyl Ketone)	ug/L		5 U	5 U	5 U	-	5 U	5 U	-	5 U	5 U	-
2-Hexanone	ug/L	99	5 U	5 U	5 U	-	5 U	5 U	-	5 U	5 U	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L		5 U	5 U	5 U	-	5 U	5 U	-	5 U	5 U	-
Acetone		1500	5 U	5 U	2 J	-	5 U	3 J	-	5 U	3 J	-
Benzene	ug/L	98	0.7 U	0.7 U	0.7 U	-	0.7 U	0.7 U	-	0.7 U	0.7 U	-
Bromodichloromethane		110	1 U	1 U	2 U	-	1 U	2 U	-	1 U	2 U	-
Bromoform		320	1 U	1 U	2 U	-	1 U	2 U	-	1 U	2 U	-
Bromomethane (Methyl Bromide)		110	1 U	1 U	2 U	-	1 U	2 U	-	1 U	2 U	-
Carbon disulfide	O,	0.92	1 U	1 U	2 U	-	1 U	2 U	-	1 U	2 U	-
Carbon tetrachloride		9.8	5.2	6.8	4	-	4.9	9	-	1.9	2	-
Chlorobenzene	ug/L	64	1 U	1 U	2 U	-	1 U	2 U	-	7.3	3	-
Chloroethane	ug/L	-	1 U	1 U	2 U	-	1 U	2 U	-	1 U	2 U	-
Chloroform (Trichloromethane)		28	3.7	4.8	2	-	3.7	6	-	1 U	2 U	-
Chloromethane (Methyl Chloride)		5500	1 U	1 U	2 U	-	1 U	2 U	-	1 U	2 U	-
cis-1,2-Dichloroethene		590	1 U 1 U	1 U 1 U	2 U 2 U	-	1 U	2 U 2 U	-	1 U 1 U	2 U 2 U	-
cis-1,3-Dichloropropene	ug/L					-	1 U		-			-
Cyclohexane	ug/L	- 110	1 U	1 U 1 U	2 U 2 U	-	1 U	2 U	-	1 U 1 U	2 U	-
Dibromochloromethane Dichlorodifluoromethane (CFC-12)		110 110	1 U 1 U	1 U	2 U	-	1 U 1 U	2 U 2 U	-	1 U	2 U 2 U	-
Ethylbenzene		110	1 U	1 U	2 U	•	1 U	2 U		1 U	2 U	-
Isopropylbenzene	ug/L ug/L	-	1 U	1 U	2 U	-	1 U	2 U	-	1 U	2 U	-
Methyl acetate	ug/L ug/L	-	1 U	1 U	2 U	•	1 U	2 U		1 U	2 U	-
Methyl cyclohexane	ug/L ug/L	-	1 U	1 U	2 U		1 U	2 U		1 U	2 U	-
Methyl Tert Butyl Ether	ug/L ug/L	-	1 U	1 U	2 U		1 U	2 U		1 U	2 U	
Methylene chloride	ug/L ug/L		1 U	1 U	2 U		1 U	2 U		1 U	2 U	
Styrene		241	1 U	1 U	2 U		1 U	2 U		1 U	2 U	
Tetrachloroethene	ug/L	60	7.5	8.1	7	_	5.7	8	_	3.0	3	_
Toluene	ug/L	94	1 U	1 U	2 U		1 U	2 U	_	1 U	2 U	
trans-1,2-Dichloroethene	ug/L		1 U	1 U	2 U	_	1 U	2 U	-	1 U	2 U	_
trans-1,3-Dichloropropene		244	1 U	1 U	2 U	_	1 U	2 U	-	1 U	2 U	_
Trichloroethene	ug/L	47	1 U	1 U	2 U	_	1 U	2 U		1 U	2 U	
Trichlorofluoromethane (CFC-11)		110	1 U	1 U	2 U	_	1 U	2 U	_	1 U	2 U	
Trifluorotrichloroethane (Freon 113)	ug/L	-	1 U	1 U	2 U		1 U	2 U		1 U	2 U	
Vinyl chloride		930	1 U	1 U	2 U		1 U	2 U		1 U	2 U	-
Xylene (total)	ug/L	13	1 U	1 U	2 U		1 U	2 U		1 U	2 U	
/ (/	-6/ -											

Sample Location:		STATION-G	STATION-G	STATION-G	STATION-G	STATION-H	STATION-H	STATION-H	STATION-I	STATION-I	STATION-I
Sample ID:			SW-7462-020808-MJW-010						SW-7462-020808-MJW-007		
Sample Date:		2/8/2008	2/8/2008	3/6/2008	3/6/2008	2/8/2008	3/6/2008	3/6/2008	2/8/2008	3/6/2008	3/6/2008
,		, ,	(Duplicate)	* * * * * * * * * * * * * * * * * * * *		,,	***	• • • • • • • • • • • • • • • • • • • •	, ,		
Parameters	Units SW-1		•								
Metals											
Aluminum (Dissolved)	ug/L 87	25.6 B	20.6 B		-	10.7 B	-	-	15.6 B	-	-
Antimony (Dissolved)	ug/L 30	2.3 U	2.3 U	-		2.3 U		-	2.3 U	-	-
Arsenic (Dissolved)	ug/L 150	1.8 U	1.8 U	-	-	1.8 U	-	-	1.8 U	-	-
Barium (Dissolved)	ug/L 438	48.8 J	47.6 J	-		48.2 J		-	44.2 J	-	-
Beryllium (Dissolved)	ug/L 2.4	0.18 U	0.18 U	-		0.18 U		-	0.18 U	-	-
Cadmium (Dissolved)	ug/L 0.25	0.32 U	0.47 J	-	-	0.32 U	-	-	0.32 U	-	-
Calcium	ug/L -	-	-	19100		-	22800	-	-	37200	-
Calcium (Dissolved)	ug/L -	20100	19900		-	22100	-	-	39100	-	-
Chromium Total (Dissolved)	ug/L 11	8.7 J	8.4 J	-		4.0 B		-	1.4 B	-	-
Cobalt (Dissolved)	ug/L 23	1.5 J	1.5 J	-	-	1.9 J	-	-	6.6 J	-	-
Copper (Dissolved)	ug/L 9	0.97 B	1.3 B		-	1.6 B	-	-	1.6 B	-	-
Iron (Dissolved)	ug/L 320	71.8 B	24 U	-		24.2 U		-	28.0 B	-	-
Lead (Dissolved)	ug/L 2.5	1.4 U	1.5 B	-	-	1.4 U	-	-	1.4 U	-	-
Magnesium (Dissolved)	ug/L -	18300	18100	-	-	20300	-	-	33200	-	-
Manganese	ug/L 1300	-	-	739		-	1340	-	-	3490	-
Manganese (Dissolved)	ug/L 1300	841	825	-		1240	-	-	4030	-	-
Mercury	ug/L 0.77	7.9	11.6	7.2	8.8	13.3	7.5	12.6	1.4	0.83	0.96
Mercury (Dissolved)	ug/L 0.77	1.0	0.88	0.91	-	0.80	1.3	-	0.10 U	0.10 U	-
Nickel (Dissolved)	ug/L 52	3.2 J	2.6 J		-	3.3 J	-	-	8.0 J		-
Potassium	ug/L -	-	-	112000	-	-	139000	-	-	40200	-
Potassium (Dissolved)	ug/L -	133000	124000		-	150000	-	-	29100	-	-
Selenium (Dissolved)	ug/L 4.6	2.4 U	2.4 U	-		4.0 J		-	2.4 U	-	-
Silver (Dissolved)	ug/L 0.36	0.41 U	0.41 U		-	0.41 U	-	-	0.41 U	-	-
Sodium	ug/L -	-	-	438000	-	-	563000	-	-	285000	-
Sodium (Dissolved)	ug/L -	507000	476000		-	590000	-	-	301000	-	-
Thallium (Dissolved)	ug/L 6	2.3 U	2.3 U	-	-	2.3 U	-	-	2.3 U	-	-
Vanadium (Dissolved)	ug/L 12	1.2 J	1.3 J		-	1.4 J	-	-	0.89 U	-	-
Zinc (Dissolved)	ug/L 118.1	10.1 B	18.8 B	-	-	12.1 B	-	-	9.4 B	-	-
General Chemistry											
Alkalinity, Total (as CaCO3)	ug/L -	-	-	85800	-		104000	-	-	97500	-
Carbonate	ug/L -	-	-	1000 U	-		1000 U	-	-	1000 U	-
Chloride	ug/L 230000	-	-	696000	-	-	900000	1 -	-	432000] -
Sulfate	ug/L -			128000	-		163000	-	-	184000	· _
Total Suspended Solids (TSS)	ug/L -		-	4000	-	-	9000	-	-	7000	-

Sample Location:			STATION-J	STATION-J	STATION-J	STATION-K	STATION-K	STATION-K	STATION-L	STATION-L	STATION-L	STATION-M
Sample ID: Sample Date:			2/8/2008	3/6/2008	3/6/2008	SW-7462-020808-MJW-005 2/8/2008	SW-/462-030608-RM-1/ 3/6/2008	5W-/462-030608-RM-18 3/6/2008	2/8/2008	3/6/2008	3/6/2008	2/8/2008
Sample Date:			2/8/2008	3/6/2008	3/6/2008	2/8/2008	3/6/2008	3/6/2008	2/8/2008	3/6/2008	3/6/2008	2/8/2008
Parameters	Units	SW-1										
Volatile Organic Compounds												
1,1,1-Trichloroethane	ug/L	410	1 U	2 U		1 U	2 U	-	1 U	2 U	-	1 U
1,1,2,2-Tetrachloroethane	ug/L	2400	1 U	2 U	-	1 U	2 U	-	1 U	2 U	-	1 U
1,1,2-Trichloroethane	ug/L		1 U	2 U	-	1 U	2 U	-	1 U	2 U	-	1 U
1,1-Dichloroethane	ug/L	740	1 U	2 U	-	1 U	2 U	-	1 U	2 U	-	1 U
1,1-Dichloroethene	ug/L	25	1 U	2 U	-	1 U	2 U	<u>.</u>	1 U	2 U	-	1 U
1,2,4-Trichlorobenzene	ug/L	50	23	19	-	52	56	-	29	12	-	5.2
1,2-Dibromo-3-chloropropane (DBCP)	ug/L		1 U	2 U	-	1 U	2 U	-	1 U	2 U	-	1 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L		1 U	2 U		1 U	2 U	<u>.</u>	1 U	2 U	-	1 U
1,2-Dichlorobenzene	ug/L	14	120	110	-	240	260	-	280	120	-	48
1,2-Dichloroethane	ug/L		1 U	2 U	-	1 U	2 U	-	1 U	2 U	-	1 U
1,2-Dichloropropane	ug/L		1 U	2 U	-	1 U	2 U	-	1 U	2 U	-	1 U
1,3-Dichlorobenzene	ug/L		26	21	-	51	61	-	43	21	-	11
1,4-Dichlorobenzene	ug/L	16	160	110	-	300	360	-	440	160	-	51
2-Butanone (Methyl Ethyl Ketone)	ug/L		5 U	5 U		5 U	5 U	-	5 U	5 U	-	5 U
2-Hexanone	ug/L	99	5 U	5 U		5 U	5 U	-	5 U	5 U	-	5 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	170	5 U	5 U	-	5 U	5 U	-	5 U	5 U	-	5 U
Acetone	ug/L	1500	3 J	3 J	-	3 J	4 J	-	3 J	3 J	-	4 J
Benzene	ug/L		4.6	4	-	13	19	-	110	60	-	36
Bromodichloromethane	ug/L	110	1 U	2 U	-	1 U	2 U	-	1 U	2 U	-	1 U
Bromoform	ug/L	320	1 U	2 U	-	1 U	2 U	-	1 U	2 U	-	1 U
Bromomethane (Methyl Bromide)	ug/L		1 U	2 U	-	1 U	2 U	-	1 U	2 U	-	1 U
Carbon disulfide	ug/L		1 U	2 U	-	1 U	2 U	-	1 U	2 U	-	1 U
Carbon tetrachloride	ug/L	9.8	8.7	5	-	7.1	9	_	3.0	2	-	1 U
Chlorobenzene	ug/L	64	96	57	-	170	310	-	430	150	-	48
Chloroethane	ug/L	-	1 U	2 U	-	1 U	2 U	-	1 U	2 U	-	1 U
Chloroform (Trichloromethane)	ug/L	28	2.3	1 J	-	2.1	2	-	1.2	2 U	-	1 U
Chloromethane (Methyl Chloride)	ug/L		1 U	2 U	-	1 U	2 U	-	1 U	2 U	-	1 U
cis-1,2-Dichloroethene	ug/L		1 U	2 U	-	1 U	2 U	-	1 U	2 U	-	1 U
cis-1,3-Dichloropropene	ug/L	0.055	1 U	2 U	-	1 U	2 U	-	1 U	2 U	-	1 U
Cyclohexane	ug/L	-	1 U	2 U	-	1 U	2 U	-	1 U	2 U	-	1 U
Dibromochloromethane	ug/L		1 U	2 U	-	1 U	2 U	-	1 U	2 U	-	1 U
Dichlorodifluoromethane (CFC-12)	ug/L		1 U	2 U	-	1 U	2 U	-	1 U	2 U	-	1 U
Ethylbenzene	ug/L		1 U	2 U	-	1 U	2 U	-	1 U	2 U	-	1 U
Isopropylbenzene	ug/L	-	1 U	2 U	-	1 U	2 U	-	1 U	2 U	-	1 U
Methyl acetate	ug/L		1 U	2 U	-	1 U	2 U	-	1 U	2 U	-	1 U
Methyl cyclohexane	ug/L	-	1 U	2 U	-	1 U	2 U	-	1 U	2 U	-	1 U
Methyl Tert Butyl Ether	ug/L	1500	1 U	2 U	-	1 U	2 U	-	1 U	2 U	-	1 U 1 U
Methylene chloride	ug/L		1 U	2 U	-	1 U	2 U	-	1 U	2 U	-	
Styrene Tetrachloroethene	ug/L	241 60	1 U 2.4	2 U 2	-	1 U 3.4	2 U 4	-	1 U 1 U	2 U 2 U	-	1 U 1 U
	ug/L				-			-			-	
Toluene trans-1,2-Dichloroethene	ug/L	94 1160	1 U 1 U	2 U 2 U	-	1 U 1 U	2 U 2 U	-	1 U 1 U	2 U 2 U	-	1 U 1 U
trans-1,2-Dichloropetnene trans-1,3-Dichloropropene	ug/L		1 U	2 U	-	1 U	2 U	-	1 U	2 U	-	1 U
Trichloroethene	ug/L		1 U	2 U	-	1 U	2 U	-	1 U	2 U	-	1 U
Trichloroethene Trichlorofluoromethane (CFC-11)	ug/L		1 U 1 U	2 U 2 U	-	1 U 1 U	2 U 2 U	-	1 U 1 U	2 U 2 U	-	1 U 1 U
Trifluorotrichloroethane (Freon 113)	ug/L ug/L	- 110	1 U	2 U	-	1 U	2 U	-	1 U	2 U	-	1 U
Vinyl chloride	ug/L ug/L		1 U	2 U	-	1 U	2 U	-	1.1	2 U	-	1.1
Xylene (total)	ug/L ug/L		1 U	2 U	-	1 U	2 U	-	1.1 1 U	1 J 2 U	-	1.1 1 U
Ayiene (iotai)	ug/L	13	10	2 U	-	10	20	-	1 U	20	-	10

Sample Location:		STATION-J	STATION-J	STATION-J	STATION-K	STATION-K	STATION-K	STATION-L	STATION-L	STATION-L	STATION-M
Sample ID:											SW-7462-020808-MJW-003
Sample Date:		2/8/2008	3/6/2008	3/6/2008	2/8/2008	3/6/2008	3/6/2008	2/8/2008	3/6/2008	3/6/2008	2/8/2008
Parameters Units	s SW-1										
Metals											
Aluminum (Dissolved) ug/I	. 87	20.3 B	-	-	8.8 U		-	8.8 U	-	-	12.3 B
Antimony (Dissolved) ug/I		2.3 U	-	-	2.3 U	-	-	2.3 U	-	-	2.3 U
Arsenic (Dissolved) ug/I	150	1.8 U	-	-	1.8 U		-	1.8 U	-	-	1.8 U
Barium (Dissolved) ug/I	438	49.1 J	-	-	41.6 J		-	40.6 J	-	-	39.9 J
Beryllium (Dissolved) ug/I	2.4	0.18 U	-	-	0.18 U	-	-	0.18 U	-	-	0.18 U
Cadmium (Dissolved) ug/I	0.25	0.32 U	-	-	0.38 J	-	-	0.32 U	-	-	0.39 J
Calcium ug/I	_	-	45700	-	-	49000	-	-	53100	-	-
Calcium (Dissolved) ug/I	_	47900	-	-	54300	-	-	52800	-	-	53300
Chromium Total (Dissolved) ug/I	. 11	1.6 B	-	-	1.4 B		-	1.8 B	-	-	3.0 B
Cobalt (Dissolved) ug/I	. 23	13.0 J	-	-	18.5 J		-	9.9 J	-	-	7.6 J
Copper (Dissolved) ug/I	. 9	1.9 B	-	-	1.2 B		-	1.4 B	-	-	1.6 B
Iron (Dissolved) ug/I	320	27.9 B	-	-	61.1 B		-	45.0 B	-	-	61.6 B
Lead (Dissolved) ug/I		1.5 B	-	-	1.4 U		-	1.4 U	-	-	2.0 B
Magnesium (Dissolved) ug/I	-	34200	-	-	41700	-	-	38800	-	-	37400
Manganese ug/I	1300	-	5920	-	-	6940	-	-	9410	-	-
Manganese (Dissolved) ug/I	. 1300	7220	-	•	8070	-	-	10200	-	-	8680
Mercury ug/I	. 0.77	18.8	1.0	0.32	0.15 J	0.69	0.36	2.1	0.61	2.9	0.52
Mercury (Dissolved) ug/I	0.77	0.10 U	0.10 U		0.10 U	0.10 U	-	0.10 U	0.10 U	-	0.10 U
Nickel (Dissolved) ug/I		10.0 J	-	-	15.2 J	-		9.4 J	-	-	8.7 J
Potassium ug/I		- '	47800	-	- 1	40500	-	-	44800	-	-
Potassium (Dissolved) ug/L	_	38600	-	-	36800		-	37300	-	-	40000
Selenium (Dissolved) ug/I	4.6	2.4 U	-	-	3.2 J	-	-	3.2 J	-	-	2.4 U
Silver (Dissolved) ug/I	. 0.36	0.96 J	-	-	1.3 J	-	-	1.3 J	-	-	1.2 J
Sodium ug/I		-	327000	-	-	348000	-	-	348000	-	-
Sodium (Dissolved) ug/I	-	348000	-	-	426000		-	340000	-	-	350000
Thallium (Dissolved) ug/I	6	2.3 U	-	-	2.3 U		-	4.3 J	-	-	2.5 J
Vanadium (Dissolved) ug/I	. 12	0.89 U	-	-	0.89 U		-	0.89 U	-	-	1.6 J
Zinc (Dissolved) ug/I	118.1	16.1 B	-	-	24.6 B	-	-	9.7 B	-	-	6.7 B
General Chemistry											
Alkalinity, Total (as CaCO3) ug/I		-	121000	-		96000	-	-	144000	-	-
Carbonate ug/I		-	1000 U	-		1000 U	-	-	1000 U	-	-
Chloride ug/I	230000		488000	-		571000			501000	_	-
Sulfate ug/I		!	239000	•		270000			302000	•	
		-	239000	-	-	270000	-	-	302000	-	-

Sample Location: Sample ID:			STATION-M SW-7462-030708-RM-31	STATION-M SW-7462-030708-RM-32	STATION-N SW-7462-020808-MJW-002	STATION-N SW-7462-030708-RM-33	STATION-N SW-7462-030708-RM-34	STATION-S SW-7462-030608-RM-03
Sample Date:			3/7/2008	3/7/2008	2/8/2008	3/7/2008	3/7/2008	3/6/2008
Parameters	Units	SW-1						
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	410	2 U	-	1 U	2 U	-	2 U
1,1,2,2-Tetrachloroethane	ug/L	2400	2 U		1 U	2 U	-	2 U
1,1,2-Trichloroethane	ug/L	87	2 U	-	1 U	2 U	-	2 U
1,1-Dichloroethane	ug/L		2 U	-	1 U	2 U	-	2 U
1,1-Dichloroethene	ug/L	25	2 U	-	1 U	2 U	-	2 U
1,2,4-Trichlorobenzene	ug/L	50	7	-	2.2	2	-	2 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	-	2 U	-	1 U	2 U	-	2 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	180	2 U	-	1 U	2 U	-	2 U
1,2-Dichlorobenzene	ug/L	14	110	-	11	20	-	3
1,2-Dichloroethane	ug/L	980	2 U	-	1 U	2 U	-	2 U
1,2-Dichloropropane	ug/L		2 U	-	1 U	2 U	-	2 U
1,3-Dichlorobenzene	ug/L	52	19	-	5.2	6	-	2 U
1,4-Dichlorobenzene	ug/L	16	140	-	4.6	13	-	1 B
2-Butanone (Methyl Ethyl Ketone)	ug/L	14000	5 U	-	5 U	5 U	-	5 U
2-Hexanone	ug/L	99	5 U	-	5 U	5 U	-	5 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	170	5 U	-	5 U	5 U	-	5 U
Acetone	ug/L		3 J	-	4 J	3 J	-	2 J
Benzene	ug/L	98	120	-	0.7 U	7	-	0.7 U
Bromodichloromethane	ug/L		2 U	-	1 U	2 U	-	2 U
Bromoform	ug/L	320	2 U	-	1 U	2 U	-	2 U
Bromomethane (Methyl Bromide)	ug/L	110	2 U	-	1 U	2 U	-	2 U
Carbon disulfide	ug/L	0.92	2 U	-	1 U	2 U	-	2 U
Carbon tetrachloride	ug/L	9.8	2 U	-	1 U	2 U	-	7
Chlorobenzene	ug/L	64	190	-	1.5	6	-	2 U
Chloroethane	ug/L	-	2 U	-	1 U	2 U	-	2 U
Chloroform (Trichloromethane)	ug/L	28	2 U	-	1 U	2 U	-	5
Chloromethane (Methyl Chloride)	ug/L	5500	2 U	-	1 U	2 U	-	2 U
cis-1,2-Dichloroethene	ug/L	590	2 U	-	1 U	2 U	-	2 U
cis-1,3-Dichloropropene	ug/L	0.055	2 U		1 U	2 U	-	2 U
Cyclohexane	ug/L	-	2 U	-	1 U	2 U	-	2 U
Dibromochloromethane	ug/L	110	2 U	-	1 U	2 U	-	2 U
Dichlorodifluoromethane (CFC-12)	ug/L	110	2 U		1 U	2 U	-	2 U
Ethylbenzene	ug/L	110	2 U		1 U	2 U	-	2 U
Isopropylbenzene	ug/L	-	2 U	-	1 U	2 U	-	2 U
Methyl acetate	ug/L	-	2 U		1 U	2 U	-	2 U
Methyl cyclohexane	ug/L	-	2 U	-	1 U	2 U	-	2 U
Methyl Tert Butyl Ether	ug/L	-	2 U	-	1 U	2 U	-	2 U
Methylene chloride	ug/L	1500	2 U		1 U	2 U	-	2 U
Styrene	ug/L	241	2 U	-	1 U	2 U	-	2 U
Tetrachloroethene	ug/L	60	2 U	-	1 U	2 U	-	10
Toluene	ug/L	94	2 U		1 U	2 U	-	2 U
trans-1,2-Dichloroethene	ug/L		2 U	-	1 U	2 U	-	2 U
trans-1,3-Dichloropropene	ug/L	244	2 U	-	1 U	2 U	-	2 U
Trichloroethene	ug/L	47	2 U	-	1 U	2 U	-	2 U
Trichlorofluoromethane (CFC-11)	ug/L	110	2 U	-	1 U	2 U	-	2 U
Trifluorotrichloroethane (Freon 113)	ug/L	-	2 U	-	1 U	2 U	-	2 U
Vinyl chloride	ug/L	930	3	-	1 U	2 U	-	2 U
Xylene (total)	ug/L	13	2 U	-	1 U	2 U	-	2 U

Sample Location: Sample ID: Sample Date:			STATION-M SW-7462-030708-RM-31 3/7/2008	STATION-M SW-7462-030708-RM-32 3/7/2008	STATION-N SW-7462-020808-MJW-002 2/8/2008	STATION-N SW-7462-030708-RM-33 3/7/2008	STATION-N SW-7462-030708-RM-34 3/7/2008	STATION-S SW-7462-030608-RM-03 3/6/2008
Parameters	Units	SW-1						
Metals								
Aluminum (Dissolved)	ug/L	87	-	-	32.3 B	-	-	-
Antimony (Dissolved)	ug/L	30	-	-	2.3 U	-	-	-
Arsenic (Dissolved)	ug/L	150		-	1.8 U	-		-
Barium (Dissolved)	ug/L	438	-	-	38.6 J	-	-	-
Beryllium (Dissolved)	ug/L	2.4		-	0.96 J	-		-
Cadmium (Dissolved)	ug/L	0.25		-	1.0 J	-		-
Calcium	ug/L	-	55500	-	-	54400	-	21400
Calcium (Dissolved)	ug/L	-	-	-	52100	-	-	-
Chromium Total (Dissolved)	ug/L	11	-	-	2.3 B		-	-
Cobalt (Dissolved)	ug/L	23		-	5.6 J	-		-
Copper (Dissolved)	ug/L	9	-	-	2.7 B		-	-
Iron (Dissolved)	ug/L	320		-	52.3 B	-		-
Lead (Dissolved)	ug/L	2.5	-	-	2.0 B	-	-	-
Magnesium (Dissolved)	ug/L	-		-	35700	-	-	-
Manganese	ug/L	1300	9630	-	-	9510	-	892
Manganese (Dissolved)	ug/L	1300	-	•	7570	-	•	-
Mercury	ug/L	0.77	0.63	0.52	0.90	0.86	0.78	11.1
Mercury (Dissolved)	ug/L	0.77	0.10 U	-	0.10 U	0.10 U	-	1.3
Nickel (Dissolved)	ug/L	52	-	-	8.5 J	-	-	-
Potassium	ug/L	-	44500	-	-	42200	-	89100
Potassium (Dissolved)	ug/L	-	-	-	39500		-	-
Selenium (Dissolved)	ug/L	4.6	-	-	2.4 U		-	-
Silver (Dissolved)	ug/L	0.36	-	-	1.5 J	-	-	-
Sodium	ug/L	-	370000	-	-	359000	-	347000
Sodium (Dissolved)	ug/L	-	-	-	334000		-	-
Thallium (Dissolved)	ug/L	6	-	-	4.8 J		-	-
Vanadium (Dissolved)	ug/L	12		-	2.5 J	-		-
Zinc (Dissolved)	ug/L	118.1	-	-	3.9 U	-	-	-
General Chemistry								
Alkalinity, Total (as CaCO3)	ug/L	-	150000	-	-	156000	-	82200
Carbonate	ug/L	-	1000 U	-	-	1000 U	-	1000 U
Chloride	ug/L	230000	527000	-	-	515000	-	455000
Sulfate	ug/L	-	262000	•		265000	•	114000
Total Suspended Solids (TSS)	ug/L	-	21000	-	-	23000	-	4000 U

Sample Location:		STATION-S	STATION-T	STATION-T	STATION-U	STATION-U	STATION-V	STATION-V	STATION-W	STATION-W	STATION-X
Sample ID:				SW-7462-030608-RM-06							
Sample Date:		3/6/2008	3/6/2008	3/6/2008	3/6/2008	3/6/2008	3/6/2008	3/6/2008	3/7/2008	3/7/2008	3/7/2008
Parameters	Units SW-1	1									
Volatile Organic Compounds											
1,1,1-Trichloroethane	ug/L 410		2 U	-	2 U	-	2 U	-	2 U	-	2 U
1,1,2,2-Tetrachloroethane	ug/L 2400	-	2 U	-	2 U	-	2 U		2 U	-	2 U
1,1,2-Trichloroethane	ug/L 87	-	2 U	-	2 U	-	2 U		2 U	-	2 U
1,1-Dichloroethane	ug/L 740	-	2 U	-	2 U	-	2 U	-	2 U	-	2 U
1,1-Dichloroethene	ug/L 25	-	2 U	-	2 U	-	2 U		2 U	-	2 U
1,2,4-Trichlorobenzene	ug/L 50	-	2 U	-	1 J	-	1 J	-	40	-	24
1,2-Dibromo-3-chloropropane (DBCP)	ug/L -	-	2 U	-	2 U	-	2 U		2 U		2 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L 180	_	2 U	-	2 U	-	2 U		2 U		2 U
1,2-Dichlorobenzene	ug/L 14	-	1 J	-	5	-	6		210	_	170
1,2-Dichloroethane	ug/L 980		2 Ú	_	2 U		2 U		2 U		2 U
1,2-Dichloropropane	ug/L 525		2 U	_	2 U		2 U		2 U		2 U
1,3-Dichlorobenzene	ug/L 52		2 U	_	1 J	_	1 J		74	1 .	33
1,4-Dichlorobenzene	ug/L 32	_	2 U	_	2 B	_	3 B	-	260	-	190
2-Butanone (Methyl Ethyl Ketone)	ug/L 1400	0 -	5 U	-	5 U		5 U	•	5 U	-	5 U
				-				•		•	
2-Hexanone	ug/L 99		5 U	-	5 U	-	5 U	•	5 U	-	5 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L 170		5 U	-	5 U	-	5 U	-	5 U	-	5 U
Acetone	ug/L 1500) -	3 J	-	3 J		3 J	-	3 J	-	3 J
Benzene	ug/L 98	-	0.7 U	-	0.7 U		0.7 U	-	18	-	24
Bromodichloromethane	ug/L 110		2 U	-	2 U	-	2 U	-	2 U	-	2 U
Bromoform	ug/L 320		2 U	-	2 U	-	2 U	-	2 U	-	2 U
Bromomethane (Methyl Bromide)	ug/L 110		2 U	-	2 U	-	2 U	-	2 U	-	2 U
Carbon disulfide	ug/L 0.92		2 U	-	2 U	-	2 U	-	2 U	-	2 U
Carbon tetrachloride	ug/L 9.8	-	5	-	4	-	7	-	3		4
Chlorobenzene	ug/L 64	-	2 U	-	2 U	-	2 U	-	290	-	110
Chloroethane	ug/L -	-	2 U	-	2 U	-	2 U	-	2 U		2 U
Chloroform (Trichloromethane)	ug/L 28	-	4	-	3	-	5		1 J	-	1 J
Chloromethane (Methyl Chloride)	ug/L 5500	-	2 U	-	2 U	-	2 U		2 U	-	2 U
cis-1,2-Dichloroethene	ug/L 590	-	2 U	-	2 U	-	2 U		2 U	-	2 U
cis-1,3-Dichloropropene	ug/L 0.055	5 -	2 U	-	2 U	-	2 U		2 U	-	2 U
Cyclohexane	ug/L -	-	2 U	-	2 U	-	2 U		2 U	-	2 U
Dibromochloromethane	ug/L 110	-	2 U	-	2 U	-	2 U		2 U	-	2 U
Dichlorodifluoromethane (CFC-12)	ug/L 110		2 U	-	2 U	-	2 U		2 U	-	2 U
Ethylbenzene	ug/L 110	-	2 U	-	2 U	-	2 U		2 U	-	2 U
Isopropylbenzene	ug/L -	-	2 U	-	2 U	-	2 U	-	2 U	-	2 U
Methyl acetate	ug/L -	-	2 U	-	2 U	-	2 U		2 U		2 U
Methyl cyclohexane	ug/L -	-	2 U	-	2 U	-	2 U		2 U		2 U
Methyl Tert Butyl Ether	ug/L -	-	2 U	-	2 U	-	2 U		2 U		2 U
Methylene chloride	ug/L 1500) -	2 U	-	2 U	-	2 U		2 U		2 U
Styrene	ug/L 241		2 U	-	2 U	-	2 U		2 U		2 U
Tetrachloroethene	ug/L 60	-	14	-	6	_	7	_	11	_	2
Toluene	ug/L 94	_	2 U		2 U	_	2 U	_	2 U	_	2 U
trans-1,2-Dichloroethene	ug/L 1160		2 U		2 U	_	2 U	_	2 U	_	2 U
trans-1,3-Dichloropropene	ug/L 244		2 U		2 U	_	2 U	_	2 U	_	2 U
Trichloroethene	ug/L 244 ug/L 47	_	2 U	_	2 U		2 U		2 U		2 U
Trichlorofluoromethane (CFC-11)	ug/L 4/ ug/L 110		2 U	-	2 U		2 U	-	2 U	-	2 U
Trifluorotrichloroethane (Freon 113)	ug/L 110 ug/L -		2 U	-	2 U	-	2 U	-	2 U	-	2 U
Vinyl chloride	ug/L - ug/L 930		2 U	-	2 U	-	2 U	-	2 U	-	2 U
			2 U	-	2 U		2 U	-	2 U	-	2 U
Xylene (total)	ug/L 13	-	20	-	20	•	20	•	20	-	20

Sample Location: Sample ID: Sample Date:		STATION-S SW-7462-030608-RM-04 3/6/2008	STATION-T SW-7462-030608-RM-05 3/6/2008	STATION-T SW-7462-030608-RM-06 3/6/2008	STATION-U SW-7462-030608-RM-07 3/6/2008	STATION-U SW-7462-030608-RM-08 3/6/2008	STATION-V SW-7462-030608-RM-09 3/6/2008	STATION-V SW-7462-030608-RM-10 3/6/2008	STATION-W SW-7462-030708-RM-21 3/7/2008	STATION-W SW-7462-030708-RM-22 3/7/2008	STATION-X SW-7462-030708-RM-23 3/7/2008
Parameters	Units SW-1	1									
Metals											
Aluminum (Dissolved)	ug/L 87	-	-	-	-		-		-	-	-
Antimony (Dissolved)	ug/L 30		-	-	-		-			-	-
Arsenic (Dissolved)	ug/L 150	-	-	-	-	-	-	-	-	-	-
Barium (Dissolved)	ug/L 438		-	-	-		-			-	-
Beryllium (Dissolved)	ug/L 2.4	-	-	-	-	-	-	-	-	-	-
Cadmium (Dissolved)	ug/L 0.25	-	-	-	-	-	-	-	-	-	-
Calcium	ug/L -		19200	-	24200		24600		58300	-	53300
Calcium (Dissolved)	ug/L -	-	-	-	-		-		-	-	-
Chromium Total (Dissolved)	ug/L 11	-	-	-	-		-		-	-	-
Cobalt (Dissolved)	ug/L 23		-	-	-		-			-	-
Copper (Dissolved)	ug/L 9	-	-	-	-		-		-	-	-
Iron (Dissolved)	ug/L 320	-	-	-	-		-		-	-	-
Lead (Dissolved)	ug/L 2.5	-	-	-	-	-	-	-	-	-	-
Magnesium (Dissolved)	ug/L -	-	-	-	-	-	-	-	-	-	-
Manganese	ug/L 1300		512	-	1360	-	1390	-	9330	-	8860
Manganese (Dissolved)	ug/L 1300	-	-	-	-	-	-		-		
Mercury	ug/L 0.77	12.1	22.2	37.2	7.0	7.6	7.8	12.8	0.27	0.20	1.4
Mercury (Dissolved)	ug/L 0.77	-	3.4	-	1.9	-	1.7	-	0.10 U	-	0.10 U
Nickel (Dissolved)	ug/L 52		-	-	-		-				-
Potassium	ug/L -	-	79600	-	81900	-	105000	-	45900	-	42600
Potassium (Dissolved)	ug/L -	-	-	-	-	-	-	-	-	-	-
Selenium (Dissolved)	ug/L 4.6	-	-	-		-	-	-	-	-	-
Silver (Dissolved)	ug/L 0.36	-	-	-			-		-		-
Sodium	ug/L -	-	273000	-	348000		440000		430000		372000
Sodium (Dissolved)	ug/L -	-	-	-			-		-		-
Thallium (Dissolved)	ug/L 6	-	-	-			-		-		-
Vanadium (Dissolved)	ug/L 12	-	-	-			-		-		-
Zinc (Dissolved)	ug/L 118.1	1 -	-	-	-	-	-	-	-	-	-
General Chemistry											
Alkalinity, Total (as CaCO3)	ug/L -	-	89800	-	91000	-	98800	-	122000	-	130000
Carbonate	ug/L -	-	1000 U								
Chloride	ug/L 23000	00 -	560000	-	597000	-	830000	-	684000	-	543000
Sulfate	ug/L -		124000		139000	-	147000	•	188000		256000
Total Suspended Solids (TSS)	ug/L -	-	9000	-	5000	-	6000	-	12000	-	20000

ANALYTICAL RESULTS SUMMARY SURFACE WATER SAMPLING ALL DATA WITH CRITERIA SCREENING GLENN SPRINGS HOLDINGS, INC. DELAWARE CITY FEBRUARY MARCH 2008

Sample Location: Sample ID: Sample Date:			STATION-X SW-7462-030708-RM-24 3/7/2008	STATION-X SW-7462-030708-RM-25 3/7/2008	STATION-X SW-7462-030708-RM-26 3/7/2008	STATION-Y SW-7462-030708-RM-27 3/7/2008	STATION-Y SW-7462-030708-RM-28 3/7/2008	STATION-Z SW-7462-030708-RM-29 3/7/2008	STATION-Z SW-7462-030708-RM-30 3/7/2008
Sumple Dates			3,7,2000	(Duplicate)	(Duplicate)	3,1,2000	3,7,2000	3/1/2000	3,7,2000
Parameters	Units	SW-1		,	,				
Volatile Organic Compounds									
1,1,1-Trichloroethane	ug/L	410	-	2 U	-	2 U	-	2 U	-
1,1,2,2-Tetrachloroethane	ug/L	2400	-	2 U		2 U	-	2 U	-
1,1,2-Trichloroethane	ug/L	87	-	2 U	-	2 U	-	2 U	-
1,1-Dichloroethane	ug/L	740	-	2 U		2 U	-	2 U	-
1,1-Dichloroethene	ug/L	25	-	2 U		2 U	-	2 U	-
1,2,4-Trichlorobenzene	ug/L	50	-	26	-	8	-	6	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	-	-	2 U		2 U	-	2 U	-
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	180	-	2 U		2 U	-	2 U	-
1,2-Dichlorobenzene	ug/L	14	-	170	-	120	1 -	170] -
1,2-Dichloroethane	ug/L	980	-	2 U		2 U	-	2 U	-
1,2-Dichloropropane	ug/L	525	-	2 U		2 U	-	2 U	-
1,3-Dichlorobenzene	ug/L	52	_	33		20	_	53	1 -
1,4-Dichlorobenzene	ug/L	16		190	1 -	150	1 -	360	_
2-Butanone (Methyl Ethyl Ketone)	ug/L		_	5 U		5 U	<u>.</u>	5 U	
2-Hexanone	ug/L	99	_	5 U		5 U	_	5 U	_
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	170		5 U		5 U		5 U	
Acetone (Wetnyl Isobutyl Retolic)	ug/L			4 J		4 [6	
Benzene	ug/L	98	_	25		130	1 .	1400	1 .
Bromodichloromethane	ug/L			2 U		2 U	_	2 U	
Bromoform	ug/L ug/L	320		2 U		2 U	-	2 U	-
Bromomethane (Methyl Bromide)	ug/L	110		2 U		2 U		2 U	
Carbon disulfide	ug/L			2 U		2 U		2 U	
Carbon tetrachloride	ug/L	9.8	_	4	-	2 U	_	2 U	_
Chlorobenzene	ug/L ug/L	64		120	1 .	180	1 [2600	1
Chloroethane	ug/L	-	_	2 U	_	2 U	1 -	2 U]
Chloroform (Trichloromethane)	ug/L ug/L	28	•	1 J	•	2 U	•	2 U	-
Chloromethane (Methyl Chloride)	ug/L ug/L		-	2 U	•	2 U	•	2 U	-
cis-1,2-Dichloroethene	ug/L ug/L	590		2 U		2 U	-	2 U	-
cis-1,3-Dichloropropene	ug/L ug/L			2 U		2 U	-	2 U	-
Cyclohexane	ug/L	-	_	2 U	-	2 U	_	2	_
Dibromochloromethane	ug/L ug/L		-	2 U	•	2 U	-	2 U	-
Dichlorodifluoromethane (CFC-12)	ug/L ug/L	110		2 U		2 U	-	2 U	-
Ethylbenzene	ug/L	110		2 U		2 U		2 U	
Isopropylbenzene	ug/L	-	_	2 U	-	2 U	_	2 U	_
Methyl acetate	ug/L ug/L	-	-	2 U	•	2 U	-	2 U	-
Methyl cyclohexane	ug/L ug/L	-		2 U		2 U	-	2 U	-
Methyl Tert Butyl Ether	ug/L	-	_	2 U	-	2 U	_	2 U	_
Methylene chloride	ug/L ug/L		-	2 U	•	2 U	-	2 U	-
Styrene	ug/L ug/L	241	-	2 U	•	2 U	-	2 U	-
Tetrachloroethene	ug/L ug/L	60		2		2 U	-	2 U	-
Toluene	ug/L ug/L	94	-	2 U	-	2 U	-	2 U	-
trans-1,2-Dichloroethene	ug/L ug/L		-	2 U		2 U	-	2 U	
trans-1,3-Dichloropropene	ug/L ug/L	244	-	2 U		2 U	-	2 U	
Trichloroethene		47	-	2 U	-	2 U	-	2 U	•
Trichlorofluoromethane (CFC-11)	ug/L ug/L	110	-	2 U		2 U	-	2 U	
Trifluorotrichloroethane (Freon 113)	ug/L ug/L	-	-	2 U		2 U	-	2 U	
Vinyl chloride	ug/L ug/L	930		2 U		3		3	
Xylene (total)	ug/L ug/L			2 U		2 U	-	2 U	-
Ayrene (wai)	ug/L	1.5	-	20	-	20	-	20	-

ANALYTICAL RESULTS SUMMARY SURFACE WATER SAMPLING ALL DATA WITH CRITERIA SCREENING GLENN SPRINGS HOLDINGS, INC. DELAWARE CITY FEBRUARY MARCH 2008

Sample Location: Sample ID:		STATION-X SW-7462-030708-RM-24	STATION-X SW-7462-030708-RM-25	STATION-X SW-7462-030708-RM-26	STATION-Y SW-7462-030708-RM-27	STATION-Y SW-7462-030708-RM-28	STATION-Z SW-7462-030708-RM-29	STATION-Z SW-7462-030708-RM-30
Sample Date:		3/7/2008	3/7/2008 (Duplicate)	3/7/2008 (Duplicate)	3/7/2008	3/7/2008	3/7/2008	3/7/2008
Parameters	Units SV	/-1						
Metals								
Aluminum (Dissolved)	ug/L 8	7 -	-	-	-	-	-	-
Antimony (Dissolved)	ug/L 3	0 -	-	-	-	-	-	-
Arsenic (Dissolved)	ug/L 1				-			-
Barium (Dissolved)	ug/L 4		-	-	-	-	-	-
Beryllium (Dissolved)	ug/L 2	.4 -	-	-	-	-	-	-
Cadmium (Dissolved)	ug/L 0.	25 -	-	-	-	-	-	-
Calcium			53100	-	56000	-	55000	-
Calcium (Dissolved)			-	-	-	-	-	-
Chromium Total (Dissolved)	ug/L 1	1 -	-	-	-	-	-	-
Cobalt (Dissolved)	ug/L 2	3 -	-	-	-	-	-	-
Copper (Dissolved)	ug/L	-	-	-	-	-	-	-
Iron (Dissolved)	ug/L 3	20 -	-	-	-	-	-	-
Lead (Dissolved)	ug/L 2	.5 -	-	-	-	-	-	-
Magnesium (Dissolved)	ug/L		-	-	-	-	-	-
Manganese	ug/L 13	00 -	8830	-	9710	-	8940	-
Manganese (Dissolved)	ug/L 13	00 -	-	-	-	•	-	• -
Mercury	ug/L 0.	77 0.85	1.1	0.76	0.53	0.53	1.3	2.4
Mercury (Dissolved)	ug/L 0.	77 -	0.10 U	-	0.10 U	-	0.10 U	-
Nickel (Dissolved)		2 -	_	_		_	_	-
Potassium			42000	-	44600	-	44100	-
Potassium (Dissolved)	ug/L		-	-	-	-	-	-
Selenium (Dissolved)	ug/L 4	.6 -	-	-	-	-	-	-
Silver (Dissolved)		36 -	-	-	-	-	-	-
Sodium			368000		372000		370000	-
	ug/L		-	-	-	-	-	-
Thallium (Dissolved)	ug/L	5 -	-	-	-	-	-	-
Vanadium (Dissolved)	ug/L 1							-
Zinc (Dissolved)	ug/L 11	8.1 -	-	-	-	-	-	
	_							
General Chemistry								
Alkalinity, Total (as CaCO3)	ug/L		122000	-	154000	-	150000	
Carbonate	ug/L		1000 U		1000 U		1000 U	-
Chloride	ug/L 230	000 -	545000	-	523000	-	529000	-
Sulfate	ug/L		257000	-	273000	•	291000	•
Total Suspended Solids (TSS)	ug/L		20000	-	29000	-	35000	-



E-Mail Date: February 12, 2008

E-Mail To:

John Garges (Philadelphia)

C.C.:

Paul McMahon

E-Mail and Hard Copy if Requested

ANALYTICAL DATA ASSESSMENT AND VALIDATION A-35 CLUSTER GROUNDWATER RESAMPLING GLENN SPRINGS HOLDINGS, INC. DELAWARE CITY, DELAWARE JANUARY 2008

PREPARED BY:

CONESTOGA-ROVERS & ASSOCIATES

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P. McMahon [jbh] February 12, 2008

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1.0 INTRODUCTION

The following document details an assessment and validation of analytical results reported by H2M Labs, Inc. (H2M) for groundwater samples collected in support of the PMP Groundwater Program at the Glenn Springs Holdings, Inc. (GSH) Site in Delaware City, Delaware (Site). The samples were collected in January 2008.

The samples were analyzed for the following: total and dissolved mercury and natural attenuation parameters.

A sampling and analysis summary is presented in Table 1. A summary of the analytical data is presented in Table 2. The quality assurance/quality control (QA/QC) criteria by which these data have been assessed are outlined in the analytical methods and the documents entitled:

- i) Region III Modification to National Functional Guidelines for Organic Data Review, Multi-Media, Multi-Concentration (OLM01.0-OLM01.9), September 1994; and
- ii) "Region III Modifications to the Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analyses", April 1993.

Full Contract Laboratory Program (CLP)-equivalent raw data deliverables were provided by the laboratory. The data quality assessment and validation presented in the following subsections were performed based on the sample results and supporting QA/QC results provided. Data assessment was based on information obtained from final data sheets, method blank data, duplicate results, surrogate recoveries, blank/matrix spike recoveries, and field QA/QC samples.

2.0 SAMPLE HOLDING TIMES

The hold time periods are presented in the analytical methods. Most samples were prepared and analyzed within the method required holding times. One sample result was associated with an analysis that exceeded the holding time and was qualified as biased low (see Table 3).

All samples were properly preserved and iced after collection and upon laboratory receipt.

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3.0 SURROGATE SPIKE RECOVERIES - ORGANICS

In accordance with the method employed, all samples, blanks, and standards analyzed for dissolved gases were spiked with a surrogate compound prior to sample analysis. Surrogate recoveries provide a means to evaluate the effects of individual sample matrices on analytical efficiency and are assessed against laboratory control limits.

All surrogate recoveries met the laboratory criteria demonstrating acceptable analytical accuracy.

4.0 METHOD BLANK ANALYSES

The purpose of assessing the results of method blank analyses is to determine the existence and magnitude of sample contamination introduced during analysis. Method blanks are prepared from deionized water and analyzed as samples.

For this study, method blanks were analyzed at a minimum frequency of one per analytical batch and all data were non-detect, demonstrating that laboratory contamination was not a factor for these analyses.

5.0 LABORATORY CONTROL SAMPLE (LCS)/BLANK SPIKE (BS) ANALYSES

LCS or BS samples are prepared and analyzed to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. LCS or BS samples were prepared and analyzed for all applicable parameters. The results were acceptable for all analytes spiked, demonstrating good analytical accuracy.

6.0 MATRIX SPIKE (MS) ANALYSES - INORGANICS

To evaluate the effects of sample matrices on the digestion, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS samples. The established control limits for inorganic MS recoveries are 75 to 125 percent. Spike recoveries are not assessed for samples having original concentrations significantly greater than the spike concentration (>four times) or when the spike concentration is diluted out due to matrix interference.

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All MS recoveries met the above criteria, demonstrating good analytical accuracy.

7.0 DUPLICATE SAMPLE ANALYSES - INORGANICS

For inorganics, analytical precision is evaluated based on the analysis of duplicate samples. For this study, duplicate samples were prepared and analyzed by the laboratory at the proper frequency.

Laboratory duplicate results are assessed against a maximum relative percent difference (RPD) of 20 percent. Metals sample results less than five times the Contract Required Detection Limit (CRDL) are evaluated based on the difference between the sample and duplicate results, which should not exceed the CRDL.

The duplicate analyses met the above criteria except for the standard plate count analysis. The associated detected sample result was qualified as estimated (see Table 4).

8.0 FIELD QA/QC - RINSE BLANK ANALYSES

One rinse blank was submitted for analysis, as identified in Table 1. Total and dissolved mercury were present in the blank. Detected sample results with concentrations similar to the blank concentrations were qualified with a "B" (see Table 5).

9.0 CONCLUSION

Based on the assessment detailed in the foregoing, the data produced by H2M are acceptable with the specific qualifications noted herein.

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SAMPLE COLLECTION AND ANALYSIS SUMMARY A-35 CLUSTER GROUNDWATER RESAMPLING GLENN SPRINGS HOLDINGS, INC. DELAWARE CITY, DELAWARE JANUARY 2008

	•			Pa	ramet	ers	
Sample ID	Location ID	Collection Date (mm/dd/yy)	Collection Time (hr:min)	Total Mercury	Dissolved Mercury	Natural Attenuation	Comments
WG-7462-012208-RM-01	A-35S	01/22/08	11:05	Х	Χ	Χ	
WG-7462-012208-RM-02	A-35D	01/22/08	12:15	Χ	X	X	
WG-7462-012208-RM-03	-	01/22/08	10:35	Х	X		Rinse Blank

Note:

Not applicable.

ANAYLTICAL RESULTS SUMMARY A-35 CLUSTER GROUNDWATER RESAMPLING GLENN SPRINGS HOLDINGS, INC. DELAWARE CITY, DELAWARE JANUARY 2008

;	Sample Location	A-35D	A-35S
•	Sample ID	WG-7462-012208-RM-02	WG-7462-012208-RM-01
	Sample Date	1/22/2008	1/22/2008
Parameters	Units		
Metals			
Mercury	ug/L	36600	57.0 B
Mercury (Dissolved)	ug/L	25800	39.2 B
Dissolved Gases			
Ethane	ug/L	1 U	1 U
Ethene	ug/L	1 U	1 U
Methane	ug/L	20	26
General Chemistry			
Alkalinity, Total (As CaCO3)	mg/L	66.2	8.4
Ammonia	mg/L	0.1 U	0.32
Calcium Carbonate	mg/L	2800	380
Carbon dioxide	mg/L	7.00	12.3
Chloride	mg/L	11700	1990
Nitrate (as N)	mg/L	1.90	1.64
Nitrite (as N)	mg/L	0.1 U	0.1 U
Standard plate count	cfu/mL	10 U	65 JL
Sulfate	mg/L	700	67.5
Sulfide	mg/L	2 U	2 U
Total Dissolved Solids (TDS)	mg/L	16200	3240
Total Kjeldahl Nitrogen (TKI		0.41	0.67
Total Organic Carbon (TOC)	mg/L	1.4	1 U
Total Suspended Solids (TSS) mg/L	4	6

Notes:

- B Analyte detected in the associated blank at a comparable level.
- U Not detected.
- JL Estimated concentration, low bias.

QUALIFIED SAMPLE RESULTS DUE TO HOLDING TIME EXCEEDANCES A-35 CLUSTER GROUNDWATER RESAMPLING GLENN SPRINGS HOLDINGS, INC. DELAWARE CITY, DELAWARE JANUARY 2008

Parameter	Holding Time (Hours)	Holding Time Criteria (Hours)	Sample ID	Sample Results	Units	Qualifier
Standard Plate Count	25	24	GW-7462-012208-RM-01	65	CFU/mL	L

Note:

L Reported value may be biased low.

QUALIFIED SAMPLE RESULTS DUE TO POOR LABORATORY DUPLICATE PRECISION A-35 CLUSTER GROUNDWATER RESAMPLING GLENN SPRINGS HOLDINGS, INC. DELAWARE CITY, DELAWARE JANUARY 2008

			RPD				
			Control	Associated	Sample		
Analyte	Sample I.D.	RPD	Limit	Sample L.D.	Results	Units	Qualifier
Standard plate count	GW-7462-012208-RM-01	60	0-20	GW-7462-012208-RM-01	65	CFU/mL	J

Notes:

J Estimated.

RPD Relative Percent Difference.

QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE RINSE BLANK A-35 CLUSTER GROUNDWATER RESAMPLING GLENN SPRINGS HOLDINGS, INC. DELAWARE CITY, DELAWARE JANUARY 2008

Parameter	Rinse Blank Date	Analyte	Blank Result	Sample ID	Sample Result	Qualified Sample Result	Units
Metals	01/22/08	Mercury	25.6	GW-7462-012208-RM-01	57.0	57.0 B	μg/L
Metals	01/22/08	Mercury (Dissolved)	18.0	GW-7462-012208-RM-01	39.2	39.2 B	μg/L

Note:

B Analyte detected in the associated blank at a comparable level.



E-Mail Date: E-Mail To:

March 18, 2008 John Garges

c.c.:

Paul McMahon

E-Mail and Hard Copy if Requested

ANALYTICAL DATA ASSESSMENT AND VALIDATION MERCURY SPLIT SAMPLING GLENN SPRINGS HOLDINGS, INC. DELAWARE CITY, DELAWARE FEBRUARY 2008

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TABLE 1	SAMPLE COLLECTION AND ANALYSIS SUMMARY
TABLE 2	ANALYTICAL RESULTS SUMMARY

1.0 INTRODUCTION

The following document details an assessment and validation of analytical results reported by H2M Labs, Inc. (H2M) and TestAmerica Pittsburgh (TA) for groundwater samples collected in support of the PMP Groundwater Program at the Glenn Springs Holdings, Inc. (GSH) Site in Delaware City, Delaware (Site). The samples were collected in February 2008 and split between the laboratories to verify elevated mercury concentrations in location A-35D.

The samples were analyzed for the following: total and dissolved mercury and chloride.

A sampling and analysis summary is presented in Table 1. A summary of the analytical data is presented in Table 2. The quality assurance/quality control (QA/QC) criteria by which these data have been assessed are outlined in the analytical methods and the document "Region III Modifications to the Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analyses", April 1993.

Full Contract Laboratory Program (CLP)-equivalent raw data deliverables were provided by the laboratory. The data quality assessment and validation presented in the following subsections were performed based on the sample results and supporting QA/QC results provided. Data assessment was based on information obtained from final data sheets, method blank data, duplicate results, blank/matrix spike recoveries, and field QA/QC samples.

2.0 SAMPLE HOLDING TIMES

The hold time periods are presented in the analytical methods. All samples were prepared and analyzed within the method required holding times.

All samples were properly preserved and iced after collection and upon laboratory receipt.

3.0 METHOD BLANK ANALYSES

The purpose of assessing the results of method blank analyses is to determine the existence and magnitude of sample contamination introduced during analysis. Method blanks are prepared from deionized water and analyzed as samples.

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For this study, method blanks were analyzed at a minimum frequency of one per analytical batch and all data were non-detect, demonstrating that laboratory contamination was not a factor for these analyses.

4.0 LABORATORY CONTROL SAMPLE (LCS)/BLANK SPIKE (BS) ANALYSES

LCS or BS samples are prepared and analyzed to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. LCS or BS samples were prepared and analyzed for all applicable parameters. The results were acceptable for all analytes spiked, demonstrating good analytical accuracy.

5.0 MATRIX SPIKE (MS) ANALYSES - INORGANICS

To evaluate the effects of sample matrices on the digestion, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS samples. The established control limits for inorganic MS recoveries are 75 to 125 percent. Spike recoveries are not assessed for samples having original concentrations significantly greater than the spike concentration (>four times) or when the spike concentration is diluted out due to matrix interference.

All MS recoveries met the above criteria, demonstrating good analytical accuracy.

6.0 <u>DUPLICATE SAMPLE ANALYSES - INORGANICS</u>

For inorganics, analytical precision is evaluated based on the analysis of duplicate samples. For this study, duplicate samples were prepared and analyzed by the laboratory at the proper frequency.

Laboratory duplicate results are assessed against a maximum relative percent difference (RPD) of 20 percent. Metals sample results less than five times the Contract Required Detection Limit (CRDL) are evaluated based on the difference between the sample and duplicate results, which should not exceed the CRDL.

The duplicate analyses met the above criteria demonstrating acceptable laboratory precision.

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7.0 FIELD QA/QC - EQUIPMENT BLANK ANALYSES

One equipment blank was submitted for analysis, as identified in Table 1. Total and dissolved mercury were present in the blank for both laboratories. The TA equipment blank results were very low in concentration, and all associated sample results were significantly greater in concentration and were not impacted. H2M reported elevated mercury results for the equipment blank. Based on the agreement of the mercury results for the investigative samples between the laboratories, and the low rinse blank results reported by TA, it is suspected that the H2M equipment blank results are erroneous. No qualification of the data was performed on this basis.

8.0 <u>CONCLUSION</u>

Based on the assessment detailed in the foregoing, the data produced by H2M and TA are acceptable without qualification.

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SAMPLE COLLECTION AND ANALYSIS SUMMARY MERCURY SPLIT SAMPLING GLENN SPRINGS HOLDINGS, INC. DELAWARE CITY, DELAWARE FEBRUARY 2008

		•	eters				
Sample ID	Location ID	Collection Date (mm/dd/yy)	Collection Time (hr:min)	Total Mercury	Dissolved Mercury	Chloride	Comments
WG-7462-022508-RM-01	A-34D	2/25/08	10:45	Х	X	Χ	
WG-7462-022508-RM-02	A-40D	2/25/08	12:10	Χ	Χ	Χ	
WG-7462-022508-RM-03	A-35S	2/25/08	13:20	X	Χ	X	
WG-7462-022508-RM-04	A-35D	2/25/08	14:30	X	X	X	MS/MSD/Duplicate
EB-7462-022508-RM-05		2/25/08	12:40	X	X	X	Equipment Blank

Notes:

Not applicable. Matrix Spike.

MS

MSD Matrix Spike Duplicate.

TABLE 2 ANALYTICAL RESULTS SUMMARY MERCURY SPLIT SAMPLING GLENN SPRINGS HOLDINGS, INC. DELAWARE CITY, DELAWARE FEBRUARY 2008

Sas	nple Location:	A-34D	A-34D	A-35D	A-35D
Sui	Sample Id:	WG-7462-022508-RM-01	WG-7462-022508-RM-01	WG-7462-022508-RM-04	WG-7462-022508-RM-04
	Laboratory:	H2M	TestAmerica	H2M	TestAmerica
	Sample Date:	2/25/2008	2/25/2008	2/25/2008	2/25/2008
Parameters	Units				
Metals					
Mercury	ug/L	247	325	48700	62100
Mercury (Dissolved)	ug/L	233	307	46700	60100
General Chemistry					
Chloride	mg/L	4110	4280	8940	8090
C m.		4.250	. 252		
<i>501.</i>	nple Location: Sample Id:	A-35S WG-7462-022508-RM-03	A-35S WG-7462-022508-RM-03	A-40D WG-7462-022508-RM-02	A-40D WG-7462-022508-RM-02
	Laboratory:	H2M	TestAmerica	H2M	TestAmerica
	Sample Date:	2/25/2008	2/25/2008	2/25/2008	2/25/2008
Parameters	Units				
Metals					
Mercury	ug/L	40.0	55.3	72.0	98.1
Mercury (Dissolved)	ug/L	36.6	43.7	47.9	60.7
General Chemistry					
Chloride	mg/L	1350	1310	6040	5970



E-Mail Date: E-Mail To:

March 19, 2008 John Garges Paul McMahon

c.c.:

E-Mail and Hard Copy if Requested

ANALYTICAL DATA ASSESSMENT AND VALIDATION QUARTERLY GROUNDWATER PMP SAMPLING GLENN SPRINGS HOLDINGS, INC. DELAWARE CITY, DELAWARE FEBRUARY 2008

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1.0 <u>INTRODUCTION</u>

The following document details an assessment and validation of analytical results reported by H2M Labs, Inc. (H2M) for groundwater samples collected in support of the PMP Quarterly Groundwater Program at the Glenn Springs Holdings, Inc. (GSH) Site in Delaware City, Delaware (Site). The samples were collected in February 2008.

The samples were analyzed for the following: target compound list (TCL) volatile organic compounds (VOCs), total and dissolved target analyte list (TAL) metals, and total and dissolved mercury.

A sampling and analysis summary is presented in Table 1. A summary of the analytical data is presented in Table 2. The quality assurance/quality control (QA/QC) criteria by which these data have been assessed are outlined in the analytical methods and the documents entitled:

- Region III Modification to National Functional Guidelines for Organic Data Review, Multi-Media, Multi-Concentration (OLM01.0-OLM01.9), September 1994; and
- Region III Modifications to the Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analyses, April 1993.

Full Contract Laboratory Program (CLP)-equivalent raw data deliverables were provided by the laboratory. The data quality assessment and validation presented in the following subsections were performed based on the sample results and supporting QA/QC results provided. Data assessment was based on information obtained from final data sheets, method blank data, duplicate results, surrogate recoveries, blank/matrix spike recoveries, and field QA/QC samples.

2.0 <u>SAMPLE HOLDING TIMES</u>

The hold time periods are presented in the analytical methods. All samples were prepared and analyzed within the method required holding times.

All samples were properly preserved and cooled after collection.

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3.0 SURROGATE SPIKE RECOVERIES - VOCs

In accordance with the method employed, all samples, blanks, and standards analyzed for VOCs were spiked with surrogate compounds prior to sample analysis. Surrogate recoveries provide a means to evaluate the effects of individual sample matrices on analytical efficiency and are assessed against method control limits.

Most surrogate recoveries were acceptable, demonstrating good analytical efficiency. High surrogate recoveries were reported for one sample, and the associated detected results were qualified as estimated (see Table 3).

4.0 METHOD BLANK ANALYSES

The purpose of assessing the results of method blank analyses is to determine the existence and magnitude of sample contamination introduced during analysis. Method blanks are prepared from deionized water and analyzed as samples.

For this study, method blanks were analyzed at a minimum frequency of one per analytical batch and the data were non-detect with the exception of some metals. All associated sample results for these analytes with concentrations similar to the blank were qualified with a "B" (see Table 4).

5.0 LABORATORY CONTROL SAMPLE (LCS)/BLANK SPIKE (BS) ANALYSES

LCS or BS samples are prepared and analyzed to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. LCS or BS samples were prepared and analyzed for all applicable parameters. The results were acceptable for all analytes spiked demonstrating good analytical accuracy.

6.0 MATRIX SPIKE (MS) ANALYSES - METALS

To evaluate the effects of sample matrices on the digestion, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS samples. The established control limits for inorganic MS recoveries are 75 to 125 percent. Spike recoveries are not assessed for samples having original concentrations significantly greater than the spike concentration (>four times).

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All MS recoveries met the above criteria except for one high aluminum recovery. Associated detected sample results were qualified as estimated (see Table 5).

7.0 <u>DUPLICATE SAMPLE ANALYSES - METALS</u>

For inorganics, analytical precision is evaluated based on the analysis of duplicate samples. For this study, duplicate samples were prepared and analyzed by the laboratory at the proper frequency.

Laboratory duplicate results are assessed against a maximum relative percent difference (RPD) of 20 percent. Metals sample results less than five times the Contract Required Detection Limit (CRDL) are evaluated based on the difference between the sample and duplicate results, which should not exceed the CRDL.

The duplicate analyses met the above criteria, demonstrating good laboratory precision.

8.0 MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) ANALYSES - VOCs

To evaluate the effects of sample matrices on the preparation, measurement procedures, and accuracy of organic parameters, samples are spiked with a known concentration of the analyte of concern and analyzed as MS samples. The laboratory prepared the spike samples in duplicate, to assess analytical precision. The laboratory established the MS/MSD control limits internally. Per the "Guidelines", qualification of data is not required if the sample results exceed four times the spike concentration added.

Most MS/MSD analyses performed were acceptable, demonstrating good analytical accuracy and precision. High toluene MS/MSD recoveries were reported, but the associated sample result was non-detect and was not impacted.

9.0 FIELD QA/QC

9.1 FIELD BLANK ANALYSES

Two field blanks were submitted for analysis, as identified in Table 1. Several metals were present in the blanks. Detected sample results with concentrations similar to the blank concentrations were qualified with a "B" (see Table 6).

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9.2 TRIP BLANK ANALYSES

Four trip blanks were submitted for VOC analyses. Most trip blank results were non-detect for the compounds of interest. Acetone was detected in one trip blank, but the associated sample results were non-detect and were not impacted.

9.3 FIELD DUPLICATE ANALYSES

To assess the analytical and sampling precision, two field duplicate samples were collected and submitted "blind" to the laboratory, as indicated in Table 1. All results were comparable, demonstrating good field and laboratory precision.

10.0 <u>CONCLUSION</u>

Based on the assessment detailed in the foregoing, the data produced by H2M are acceptable with the specific qualifications noted herein.

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SAMPLE COLLECTION AND ANALYSIS SUMMARY QUARTERLY PMP GROUNDWATER SAMPLING GLENN SPRINGS HOLDINGS, INC. DELAWARE CITY, DELAWARE FEBRUARY 2008

				Analysis/Parameters			amete	ers	
Sample ID	Location ID	Collection Date (mm/dd/yy)	Collection Time (hr:min)	VOCs	Total Metals	Dissolved Metals	Total Mercury	Dissolved Mercury	Comments
FB-7462-020808-MJW001	***	02/08/08	12:30	Χ		χ	χ	Х	Field Blank
SW-7462-020808-MJW-002	Station N	02/08/08	13:30	Х		Х	Χ	Χ	
SW-7462-020808-MJW-003	Station M	02/08/08	13:40	Х		Х	X	Χ	
SW-7462-020808-MJW-004	Station L	02/08/08	13:50	Χ		X	Χ	Χ	
SW-7462-020808-MJW-005	Station K	02/08/08	14:00	X		Х	X	X	
SW-7462-020808-MJW-006	Station J	02/08/08	14:10	X		Χ	X	X	
SW-7462-020808-MJW-007	Station I	02/08/08	14:20	Χ		Χ	Χ	Χ	
SW-7462-020808-MJW-008	Station H	02/08/08	14:30	Х		Χ	X	Χ	MS/MSD/Duplicate
SW-7462-020808-MJW-009	Station G	02/08/08	14:40	Х		Х	Х	X	, , , , , , ,
SW-7462-020808-MJW-010	Station G	02/08/08	14:50	X		Х	X	Χ	Duplicate of SW-7462-020808-MJW-009
Trip Blank	••	02/08/08	5 - <u>-</u>	Х					Trip Blank
GW-7462-020508-MJW-01	A-49	02/05/08	10:45				X	Χ	1
GW-7462-020508-MJW-02	A-44	02/05/08	12:10				Х	Χ	
GW-7462-020508-MJW-03	A-50	02/05/08	13:45				X	X	
GW-7462-020508-MJW-04	A-27D	02/05/08	16:15				X	X	
RB-7462-020508-MJW-005	-	02/05/08	16:15		X	X	X	X	Field Blank
GW-7462-020608-MJW-006	A-27S	02/06/08	10:40				Χ	Χ	
GW-7462-020608-MJW-007	A-66D	02/06/08	11:25				X	Χ	
GW-7462-020608-MJW-008	A-66S	02/06/08	12:15				X	Χ	
GW-7462-020608-MJW-009	A-67D	02/06/08	13:55				X	Χ	
GW-7462-020608-MJW-010	A-67S	02/06/08	14:45				X	Χ	
GW-7462-020608-MJW-011	A-69	02/06/08	15:50	X	X	X	X	Χ	MS/MSD/Duplicate
Trip Blank	-	02/06/08	-	X					Trip Blank
GW-7462-020708-012	A-70	02/07/08	10:40	X	X	Χ	X	Χ	•
GW-7462-020708-013	A-70	02/07/08	10:45	X	X	X	Χ	Χ	Duplicate of GW-7462-020708-012
GW-7462-020708-014	A-71	02/07/08	11:55	X	X	X	X	X	*
GW-7462-020708-015	A-75	02/07/08	13:05	X	X	X	X	Χ	
GW-7462-020708-016	A-65	02/07/08	14:20	Χ	X	X	X	Χ	
GW-7462-020708-017	A-77	02/07/08	15:35	X	X	Χ	X	X	
Trip Blank	-	02/07/08	-	Χ					Trip Blank
GW-7462-020808-MJW-018	System Effluent	02/08/08	10:25	Χ	Χ	X	Χ	Χ	•
GW-7462-020808-MJW-019	Carbon Influent	02/08/08	10:35	Χ	Χ	Χ	X	X	
Trip Blank	-	02/08/08	-	X					Trip Blank

Notes:

Not applicable.MS Matrix Spike.

MSD Matrix Spike Duplicate.

VOCs Volatile Organic Compounds.

Sample Loca Sample Sample I	e ID:	A-27D GW-7462-020508-MJW- 2/5/2008	A-27S 04 GW-7462-020608-MJW-006 C 2/6/2008	A-44 GW-7462-020508-MJW-0 2/5/2008	A-49 2 GW-7462-020508-MJW-01 2/5/2008	A-50 GW-7462-020508-MJW-03 2/5/2008	A-65 GW-7462-020708-016 2/7/2008
Parameters	Units						
1,1,1-Trichloroethane	ug/L						
1,1,2,2-Tetrachloroethane	ug/L	-	-	-	-	-	1 U
1,1,2-Trichloroethane	ug/L	_	- -	-	-	-	1 U
1,1-Dichloroethane	ug/L	_	-	-	-	-	1 U
1,1-Dichloroethene	ug/L	_	-	-	-	-	1 U
1,2,4-Trichlorobenzene	ug/L	_	-	-	-	-	1 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	-	-	-	~	-	27
1,2-Dibromoethane (Ethylene Dibromide	e) ug/L	_	-	-	-	-	1 U
1,2-Dichlorobenzene	ug/L ug/L	-	-	-	- -	-	1 U
1,2-Dichloroethane	ug/L		-	•	-	~	100
1,2-Dichloropropane	ug/L ug/L	-	-	-	-	-	1 U
1,3-Dichlorobenzene	ug/L ug/L	•	-	- ·	~	~	1 U
1,4-Dichlorobenzene	ug/L	-	~	-	-	-	9
2-Butanone (Methyl Ethyl Ketone)	ug/L	-	-	-	-	~	110
2-Hexanone	ug/L ug/L	-	*	~	-	-	5 U
4-Methyl-2-Pentanone (Methyl Isobutyl I	Keto: ug/L	-		-	-	-	5 U
Acetone	ug/L	- -	-	-		-	5 U
Benzene	ug/L ug/L	-	-	-	. -	-	5 U
Bromodichloromethane	ug/L	•	-	-	<u>-</u>	-	62
Bromoform	ug/L ug/L	-	-	-	-	-	1 U
Bromomethane (Methyl Bromide)	ug/L	_	-	-	-	-	1 U
Carbon disulfide	ug/L	-	· -	-	-	-	1 U
Carbon tetrachloride	ug/L	-	-	-	-	-	1 U
Chlorobenzene	ug/L	-	-	-	- :	-	1 U
Chloroethane	ug/L ug/L	-	-	.	-	-	350
Chloroform (Trichloromethane)	ug/L	~	-	-	-	-	1 U
Chloromethane (Methyl Chloride)	ug/L ug/L	-	-	-	-	-	1 U
cis-1,2-Dichloroethene	ug/L	-	~	-	~	-	1 U
cis-1,3-Dichloropropene	ug/L ug/L	-	-	-	-	-	1 U
Cyclohexane	ug/L ug/L	-	-	-	-	-	1 U
Dibromochloromethane	ug/L ug/L	-	-	-	-	-	1 U
Dichlorodifluoromethane (CFC-12)	ug/L ug/L	-	-	-	-	-	1 U
Ethylbenzene	ug/L ug/L	-	-	-	-	-	1 U
Isopropylbenzene	ug/L	-	-	-	-	-	1 U
Methyl acetate	ug/L	•	-	-	-	-	1 U
Methyl cyclohexane	ug/L ug/L	-	-	-	-	-	1 U
Methyl Tert Butyl Ether	ug/L	•	-	-	-	-	1 U
Methylene chloride	ug/L	*	-	-	-	-	1 U
	ug/L	-	-	-	-	-	1 U

		A-27D GW-7462-020508-MJW 2/5/2008	A-27S -04 GW-7462-020608-MJW-006 2/6/2008	A-44 GW-7462-020508-MJW-02 2/5/2008	A-49 GW-7462-020508-MJW-01 2/5/2008	A-50 GW-7462-020508-MJW-03 2/5/2008	A-65 GW-7462-020708-016 2/7/2008
Parameters	Units						
Volatiles (Con'td.)						•	
Styrene	ug/L	-	-	-	· <u>-</u>	-	1 U
Tetrachloroethene	ug/L	_	-	_	-	-	1 U
Toluene	ug/L	_	_	<u>-</u>	-	-	1 U
trans-1,2-Dichloroethene	ug/L	-	-	-	-	-	1 U
trans-1,3-Dichloropropene	ug/L	_	=	-	-	-	1 U
Trichloroethene	ug/L	_	-		-	~	1 U
Trichlorofluoromethane (CFC-11)	ug/L	_	<u></u>	-	-	-	1 U
Trifluorotrichloroethane (Freon 113)	ug/L	-	. -	-	-	-	1 U
Vinyl chloride	ug/L	**	-	~	_	-	1 U
Xylene (total)	ug/L	_	-	_	_	_	1 U
Metals	-6/ -5						10
Aluminum	ug/L	-	-	_	_	-	1070 K
Aluminum (Dissolved)	ug/L	_	-	_		_	9.8 B
Antimony	ug/L		-	_	-	-	2.6 [
Antimony (Dissolved)	ug/L	_	-	-	_	-	2.3 J
Arsenic	ug/L	_	-	_	-	_	27.8
Arsenic (Dissolved)	ug/L	_	_	_		_	13.5
Barium	ug/L	<u>.</u>	_	_	_	~	521
Barium (Dissolved)	ug/L	•	_	-	_	_	485
Beryllium	ug/L	•	_	_	_	_	0.18 U
Beryllium (Dissolved)	ug/L	_	_	_	· _	_	0.18 U
Cadmium	ug/L		_	_	- _	_	1.8 B
Cadmium (Dissolved)	ug/L		_	_		_	1.6 B
Calcium	ug/L	_	_	_	· -	,	53300
Calcium (Dissolved)	ug/L			_	· [50500
Chromium Total	ug/L	_	_	_	_	_	24.8
Chromium Total (Dissolved)	ug/L	_		_	-	_	0.57 U
Cobalt	ug/L			_	-	_	2.8 J
Cobalt (Dissolved)	ug/L ug/L	-		"		-	2.1 J
Copper	ug/L ug/L	-	~	-	-	-	6.6 B
Copper (Dissolved)	ug/L ug/L	-	-	-	-	-	0.90 J
Iron	ug/L ug/L	_	. -		-	-	91800
Iron (Dissolved)	ug/L ug/L	-	-	-	-	-	77600
Lead	ug/L ug/L	-	-	-	-	~	1.4 U
Lead (Dissolved)	ug/L ug/L	"	-	-	-	-	1.4 U
Magnesium	ug/L	-	-	-	-	*	18100
Magnesium (Dissolved)	ug/L	-	~	-	-	-	
Manganese	ug/L	-	· -	•	-	-	17100
mankanese	ug/L	-	-	-	-	-	738

	Sample Location: Sample ID: Sample Date:	A-27D GW-7462-020508-MJW-0 2/5/2008	A-27S 04 GW-7462-020608-MJW-006 2/6/2008	A-44 GW-7462-020508-MJW-02 2/5/2008	A-49 GW-7462-020508-MJW-01 2/5/2008	A-50 GW-7462-020508-MJW-03 2/5/2008	A-65 GW-7462-020708-016 2/7/2008
Paramete	ers Units						
Metals (Cont'd.)							
Manganese (Dissolved)	ug/L	<u>-</u>	_				
Mercury	ug/L		0.89	5.4	14.0	-	679
Mercury (Dissolved)	ug/L		0.26	1.0	16.0	28.1	0.51
Nickel	ug/L		-	1.0	3.7	16.4	0.14 J
Nickel (Dissolved)	ug/L		_	-	-	-	10.6 J
Potassium	ug/L		_	-	-	-	3.1 B
Potassium (Dissolved)	ug/L	_	-	•	~	-	5190
Selenium	ug/L		-	-	~	~	4800 J
Selenium (Dissolved)	ug/L		-	-	-	-	2.4 U
Silver	ug/L		-	-	-	-	2.4 U
Silver (Dissolved)	ug/L			~	-	-	0.41 U
Sodium	ug/L	_		-	~	-	1.0 B
Sodium (Dissolved)	ug/L	_	_	-	-	-	31000
Thallium	ug/L	-	-	-	-	-	30400
Thallium (Dissolved)	ug/L		-	~	-	*	2.3 U
Vanadium	ug/L	_	_	-	-	-	3.0 J
Vanadium (Dissolved)	ug/L	_	_	_	-		11.4 J
Zinc	ug/L	_	_	-	-	-	2.0 J
Zinc (Dissolved)	ug/L	_	_	-	-	-	22.6 B
			-	-	-	-	14.0 B

Sample Location Sample IE Sample Date);	A-66D GW-7462-020608-MJW-003 2/6/2008	A-66S 7GW-7462-020608-MJW-008 2/6/2008	A-67D GGW-7462-020608-MJW-009 2/6/2008	A-67S GW-7462-020608-MJW-010 2/6/2008	A-69 GW-7462-020608-MJW-011 2/6/2008	A-70 GW-7462-020708-012 2/7/2008
Parameters	Units						
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	-					
1,1,2,2-Tetrachloroethane	ug/L	-	-	-	~	1 U	1 U
1,1,2-Trichloroethane	ug/L	_	-	-	~	1 U	1 U
1,1-Dichloroethane	ug/L	-	-	-	-	1 U	1 U
1,1-Dichloroethene	ug/L	_	-	-	-	1 U	1 U
1,2,4-Trichlorobenzene	ug/L	-	-	-	-	1 U	1 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	-	~	-	-	330	200
1,2-Dibromoethane (Ethylene Dibromide)	ug/L ug/L	-	-	-	-	1 U	1 U
1,2-Dichlorobenzene	ug/L ug/L	-	-	-	-	1 U	1 U
1,2-Dichloroethane	ug/L	-	-	-	-	3200	2100
1,2-Dichloropropane	ug/L	-	-	-	-	1 U	1 U
1,3-Dichlorobenzene	ug/L	-	-	-	-	1 U	1 U
1,4-Dichlorobenzene	ug/L	~	-	**	-	240	270
2-Butanone (Methyl Ethyl Ketone)	ug/L	-	-	-	-	6100	2900
2-Hexanone	ug/L	-	-	-		5 U	5 U
	ug/L	-	- '	-	-	5 U	5 U
4-Methyl-2-Pentanone (Methyl Isobutyl Keto Acetone	ug/L	-	4	-	. -	5 U	5 U
Benzene	ug/L	-	· -	-	-	5 U	5 U
Bromodichloromethane	ug/L	-	~	-	-	830	
Bromoform	ug/L	-	-	-	_	1 U	2900
	ug/L	-	+	-	_	1 U	1 U
Bromomethane (Methyl Bromide)	ug/L	-	-	_	·	1 U	1 U
Carbon disulfide	ug/L	-	-	_	;		1 U
Carbon tetrachloride	ug/L	-	-	_		1 U	1 U
Chlorobenzene	ug/L	-	~		-	21	1 U
Chloroethane	ug/L	-	-			8700	7900
Chloroform (Trichloromethane)	ug/L	-	_	_		1 U	1 U
Chloromethane (Methyl Chloride)	ug/L	-	_	-	-	3	3
cis-1,2-Dichloroethene	ug/L	-		-	-	1 U	1 U
cis-1,3-Dichloropropene	ug/L	-	-	-	-	1 U	1 U
Cyclohexane	ug/L	-	-	+		1 U	1 U
Dibromochloromethane	ug/L	_	-	~	*	1 U	1 U
Dichlorodifluoromethane (CFC-12)	ug/L	_	-	•	-	1 U	1 U
Ethylbenzene	ug/L	-	-	~	~	1 U	1 U
Isopropylbenzene	ug/L	-	-	-	-	1 U	3
	ug/L ug/L	-	-	-	-	1 U	1 U
	ug/L ug/L	- · · · · · · · · · · · · · · · · · · ·	-	-	-	1 U	1 U
The state of the s	ug/L		-	-	•	1 U	1 U
3.4. (1.3. 3.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.	ug/L	-	~	-	-	1 U	1 U
y	ug/L	-	~	-	-	1 U	1 U

Parmiers Mish Wish Wis		ole Location: Sample ID: ample Date:	A-66D GW-7462-020608-MJV 2/6/2008	A-66S V-007GW-7462-020608-MJW-008 2/6/2008	A-67D GW-7462-020608-MJW-00 2/6/2008	A-67S 9GW-7462-020608-MJW-010 2/6/2008	A-69 GW-7462-020608-MJW-011 2/6/2008	A-70 GW-7462-020708-012 2/7/2008
Stree		Units	:					
Tetrachloroethene	Volatiles (Con'td.)							
Fortich Chroenthene Ug/L		ug/I	_					
Toluene	Tetrachloroethene	110/I	·	· -	-	. -	1 U	1 U
trans-12-Dichlorechene ug/L 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U	Toluene			~	-	-	5	
Trichlorothene	trans-1,2-Dichloroethene	ug/L	-	-	-	· -	1 U	
Trichloroutenene ug/L 1U 3 3 1 1 1 1 1 1 1 1	trans-1,3-Dichloropropene	ug/L	-	-	-	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	1 U	
Triflotorfuloromethane (CFC-11) 10	Trichloroethene	ug/L	-	-	-	-		
Triflorotrichloroteshane (Freen 113) ug/L ug/L ug/L 1U 1U 1U 1U 1U 1V	Trichlorofluoromethane (CEC-11	ug/L	-	-	-	-		
Virgle (total)	Trifluorotrichloroethano (France)		-	~	-	-		
Metals	Vinyl chloride		**	-	-			
Metals Aluminum ug/L 4730 K 1750 K Aluminum (Dissolved) ug/L 4730 K 1750 K Antimony (Dissolved) ug/L 88 U 16.3 B Antimony (Dissolved) ug/L 23 U 23 U Arsenic (Dissolved) ug/L 3.1 J 1.8 U Arsenic (Dissolved) ug/L 3.1 J 1.8 U Barium (Dissolved) ug/L 40.5 J 7.0 J Beryllium (Dissolved) ug/L 40.5 J 7.0 J Beryllium (Dissolved) ug/L 3.8 J 0.3 E Cadmin (Dissolved) ug/L 0.8 IB 0.20 B Earlium (Dissolved) ug/L 0.18 U 0.18 U Cadmium (Dissolved) ug/L 0.32 U 0.32 U Cadmium (Dissolved) ug/L 0.32 U 0.32 U Cadmium (Dissolved) ug/L 9.3 B 0.60 B Cadmium (Dissolved) ug/L 9.3 B 0.60 B Cadmium (Dissolved) ug/L 9.3 B 0.60 B </td <td></td> <td>ug/L</td> <td>-</td> <td>-</td> <td>~</td> <td>_</td> <td></td> <td></td>		ug/L	-	-	~	_		
Aluminum ug/L 4730 K 1750 K Aluminum (Dissolved) ug/L 4730 K 1750 K Aluminum (Dissolved) ug/L 8.8 U 16.3 B Antimony (Dissolved) ug/L 23 U 23 U Antimony (Dissolved) ug/L 23 U 23 U Arsenic ug/L 51 J 18 U Arsenic (Dissolved) ug/L 51 J 18 U Barium (Dissolved) ug/L 40.5 J 7.0 J Barium (Dissolved) ug/L 25.9 J 48 J Beryllium (Dissolved) ug/L 25.9 J 48 J Beryllium (Dissolved) ug/L 0.81 B 0.20 B Cadmium (Dissolved) ug/L 0.81 B 0.32 U Cadicium (Dissolved) ug/L 0.32 U 0.32 U Calcium (Dissolved) ug/L 88900 27600 Calcium (Dissolved) ug/L 9.8 B 0.60 B Calcium (Dissolved) ug/L 9.3 B 0.60 B Cobalt (Dissolved) ug/L	Aylene (total)	ug/L	-	-	-	_		
Aluminum ug/L 4730 K 1750 K Aluminum (Dissolved) ug/L - 8.8 U 16.3 B Antimony (Dissolved) ug/L - 2.3 U 2.3 U Arsenic ug/L - 2.3 U 2.3 U Arsenic (Dissolved) ug/L - 5.1 J 1.8 U Arsenic (Dissolved) ug/L - 1.8 U 1.8 U Barium ug/L - 2.59 J 4.8 J Beryllium ug/L - 2.59 J 4.8 J Beryllium (Dissolved) ug/L - 0.81 B 0.20 B Cadmium (Dissolved) ug/L - 0.18 U 0.18 U Cadmium (Dissolved) ug/L - 0.32 U 0.32 U Cadicium (Dissolved) ug/L - 0.32 U 0.32 U Calcium (Dissolved) ug/L - 0.32 U 0.32 U Calcium (Dissolved) ug/L - 0.90 B 0.60 B Chromium Total ug/L - 0.90 B 0.60 B Crobalt (Dissolved) ug/L -	Matala					-	10	5
Aluminum (Dissolved)								
Antimory (Dissolved)		ug/L	-	-	_			
Antimony (Dissolved) ug/L 2.3 U 2.3		ug/L	-	_	-	-		
Arsenic (Dissolved) Arsenic (Dissolved) Arsenic (Dissolved) Arsenic (Dissolved) Barium ug/L Barium (Dissolved) ug/L Barium (Dissolved) ug/L Beryllium (Dissolved) ug/L Cadmium (Dissolved) ug/L Cadmium (Dissolved) ug/L Cadmium (Dissolved) ug/L Cadmium (Dissolved) ug/L Calcium (Dissolved) ug/L Copper (Dissolved) ug/L ug/L copper (Dissolved) ug/L		ug/L		_	-	-		16.3 B
Arsenic Dissolved) ug/L		ug/L	_	_	*	~		2.3 U
Arsence (Dissolved)		ug/L	_	-	-	-	2.3 U	2.3 U
Barium (Dissolved) ug/L - 1.8 U 1.8 U Barium (Dissolved) ug/L - 40.5 J 7.0 J Beryllium (Dissolved) ug/L - 0.81 B 0.20 B Cadmium (Dissolved) ug/L - 0.18 U 0.18 U Cadmium (Dissolved) ug/L - 0.32 U 0.32 U Calcium (Dissolved) ug/L - 88900 27600 Chromium Total (Dissolved) ug/L - 88600 27800 Chromium Total (Dissolved) ug/L - 14.9 2.3 J Cobalt (Dissolved) ug/L - 9.93 B 0.60 B Cobalt (Dissolved) ug/L - 8.0 J 2.2 J Copper (Dissolved) ug/L - 8.0 J 2.2 J Copper (Dissolved) ug/L - 8.0 J 2.2 J Copper (Dissolved) ug/L - 0.87 U 9.87 U Iron (Dissolved) ug/L - 0.87 U 9.87 U Lea		ug/L		-	-	-	5.1 J	1.8 U
Beryllium Ug/L	Barium	ug/I.	_	-	-	-	1.8 U	1.8 U
Beryllium	Barium (Dissolved)	119/1		-	-	-	40.5 J	7.0 [
Beryllium (Dissolved)		11g/L	-	-	-	-	25.9 J	•
Cadmium (Dissolved) ug/L - 1.3 B 0.32 U Cadmium (Dissolved) ug/L - 1.3 B 0.32 U Calcium ug/L - 0.32 U 0.32 U Calcium (Dissolved) ug/L - 88900 27600 Chromium Total ug/L - 88600 27800 Chromium Total (Dissolved) ug/L - 14.9 2.3 J Cobalt (Dissolved) ug/L - 9.33 B 0.60 B Cobalt (Dissolved) ug/L - 8.0 J 2.2 J Copper (Dissolved) ug/L - 3.4 J 1.6 J Copper (Dissolved) ug/L - 9.87 U 9.87 U Iron (Dissolved) ug/L - 9.87 U 9.87 U Iron (Dissolved) ug/L - 9.87 U 9.87 U Lead ug/L - 9.87 U 9.87 U Lead (Dissolved) ug/L - 9.87 U 9.87 U Magnesium (Dissolved) ug/L<	Beryllium (Dissolved)	ug/L	-	~	-	-	0.81 B	
Cadmium (Dissolved) ug/L - 1.3 B 0.32 U Calcium ug/L - 0.32 U 0.32 U Calcium (Dissolved) ug/L - 88900 27600 Chromium Total ug/L - 88600 27800 Chromium Total (Dissolved) ug/L - 14.9 2.3 J Cobalt ug/L - 9.93 B 0.60 B Cobalt (Dissolved) ug/L - 9.93 B 0.60 B Copper ug/L - 9.93 B 0.60 B Copper (Dissolved) ug/L - 8.0 J 2.2 J Copper (Dissolved) ug/L - 3.4 J 1.6 J Iron ug/L - - 3.4 J 1.6 J Iron (Dissolved) ug/L - - 0.87 U 0.87 U Iron (Dissolved) ug/L - - 0.87 U 0.87 U 0.87 U Lead (Dissolved) ug/L - - - 0.1 U		ug/L	-	-	-	, *	0.18 U	
Calcium ug/L - 0.32 U 0.32 U Calcium (Dissolved) ug/L - 88900 27600 Chromium Total ug/L - 88900 27600 Chromium Total (Dissolved) ug/L - 88600 27800 Chromium Total (Dissolved) ug/L - 14.9 2.3J Cobalt ug/L - 0.93 B 0.60 B Cobalt (Dissolved) ug/L - 9.03 B 0.60 B Cobalt (Dissolved) ug/L - 9.04 B 9.06 B 9.06 B Cobalt (Dissolved) ug/L - 9.04 B 9.07 B 9.06 B 9.07 B 9.07 B 9.07 B 9.07 B 9.07 B 9.07 B <t< td=""><td>Cadmium (Dissolved)</td><td></td><td>-</td><td>-</td><td>-</td><td>.</td><td></td><td></td></t<>	Cadmium (Dissolved)		-	-	-	.		
Calcium (Dissolved) ug/L Chromium Total ug/L chromium Total (Dissolved) ug/L cobalt Cobalt Cobalt (Dissolved) ug/L cobalt (Dissolved) ug/L copper (Dissolved) ug/L co			-		-	· •		
Chromium Total ug/L - 88600 27800 Chromium Total (Dissolved) ug/L - - 14.9 2.3 J Cobalt ug/L - 0.93 B 0.60 B Cobalt (Dissolved) ug/L - 8.0 J 2.2 J Copper (Dissolved) ug/L - 3.4 J 1.6 J Loopper (Dissolved) ug/L - - 0.87 U 0.87 U Iron ug/L - - 0.87 U 0.87 U Iron (Dissolved) ug/L - - 0.87 U 0.87 U Lead ug/L - - 0.87 U 0.87 U Lead (Dissolved) ug/L - - 0.13 U 1.27 B Lead (Dissolved) ug/L - - 0.14 U 1.4 U Magnesium ug/L - - 1.4 U 1.4 U Magnesium (Dissolved) ug/L - - 46000 29300 Manganese ug/L - - 45200 28300				-	-	· -		
Chromium Total (Dissolved) ug/L - 14.9 2.3 J Cobalt ug/L - 0.93 B 0.60 B Cobalt (Dissolved) ug/L - 8.0 J 2.2 J Copper ug/L - 3.4 J 1.6 J Copper (Dissolved) ug/L - 11.4 J 4.5 B Iron ug/L - - 0.87 U 0.87 U Iron (Dissolved) ug/L - - 30200 5080 Lead ug/L - - 6.1 B 3.1 B Lead (Dissolved) ug/L - - 6.1 B 3.1 B Magnesium ug/L - - 1.4 U 1.4 U Magnesium (Dissolved) ug/L - - 46000 29300 Manganese ug/L - - 45200 28300		ug/L		~	-	· <u>-</u>		
Cobalt ug/L - 0.93 B 0.60 B Cobalt (Dissolved) ug/L - 8.0 J 2.2 J Copper ug/L - 3.4 J 1.6 J Copper (Dissolved) ug/L - 11.4 J 4.5 B Iron ug/L - 0.87 U 0.87 U Iron (Dissolved) ug/L - - 30200 5080 Lead ug/L - - 703 127 B Lead (Dissolved) ug/L - - 6.1 B 3.1 B Magnesium ug/L - - - 46000 29300 Manganesium (Dissolved) ug/L - - 45200 28300		ug/L	-	-	-	-		
Cobalt (Dissolved) ug/L - 8.0 J 2.2 J Copper ug/L - 3.4 J 1.6 J Copper (Dissolved) ug/L - 11.4 J 4.5 B Iron ug/L - 0.87 U 0.87 U Iron (Dissolved) ug/L - 30200 5080 Lead ug/L - - 6.1 B 3.1 B Lead (Dissolved) ug/L - - 6.1 B 3.1 B Magnesium ug/L - - 1.4 U 1.4 U Magnesium (Dissolved) ug/L - - 46000 29300 Manganese ug/L - - 45200 28300	Cobalt	ug/L	-	-	_	_		
Copper ug/L - 3.4 J 1.6 J Copper (Dissolved) ug/L - 11.4 J 4.5 B Iron ug/L - 0.87 U 0.87 U Iron (Dissolved) ug/L - 30200 5080 Lead ug/L - 703 127 B Lead (Dissolved) ug/L - 6.1 B 3.1 B Magnesium ug/L - 1.4 U 1.4 U Magnesium (Dissolved) ug/L - 46000 29300 Manganese ug/L - 45200 28300		ug/L	-	-	<u>-</u>	_		
Copper (Dissolved) ug/L - 11.4 J 4.5 B Iron ug/L - 0.87 U 0.87 U Iron (Dissolved) ug/L - 30200 5080 Lead ug/L - 703 127 B Lead (Dissolved) ug/L - 6.1 B 3.1 B Magnesium ug/L - 1.4 U 1.4 U Magnesium (Dissolved) ug/L - 46000 29300 Manganese ug/L - 45200 28300		ug/L	-	-	_		•	
Iron ug/L - 0.87 U 0.87 U Iron (Dissolved) ug/L - 30200 5080 Lead ug/L - 703 127 B Lead (Dissolved) ug/L - 6.1 B 3.1 B Magnesium ug/L - 1.4 U 1.4 U Magnesium (Dissolved) ug/L - 46000 29300 Manganese ug/L - 45200 28300		ug/L		-	_	-	•	*
Tron (Dissolved)		ug/L	-	-	_	-	•	
Lead ug/L - - 703 127 B Lead (Dissolved) ug/L - - 6.1 B 3.1 B Magnesium ug/L - - 1.4 U 1.4 U Magnesium (Dissolved) ug/L - 46000 29300 Manganese ug/L - - 45200 28300		ug/L	-	-	_	-		
Lead (Dissolved) ug/L - - 703 127 B Lead (Dissolved) ug/L - - 6.1 B 3.1 B Magnesium ug/L - - 1.4 U 1.4 U Magnesium (Dissolved) ug/L - 46000 29300 Manganese ug/L - 45200 28300		ug/L	-		-	-		
Lead (Dissolved) ug/L - - 6.1 B 3.1 B Magnesium ug/L - - 1.4 U 1.4 U Magnesium (Dissolved) ug/L - - 46000 29300 Manganese ug/L - - 45200 28300		ug/L	_	_	-			127 B
Magnesium (Dissolved) ug/L - - 1.4 U 1.4 U Manganesium (Dissolved) ug/L - - 46000 29300 Manganese ug/L - - 45200 28300		ug/L	-	_	-	-		3.1 B
Manganese ug/L 46000 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300 29300		ug/L	-		-	-		1.4 U
Manganese ug/L 28300		ug/L	-	- -	-	-		29300
- 10500 804	Manganese	ug/I.		-	-	-	45200	28300
		<i>u</i> / –		-	-	•	10500	804

	Sample Location: Sample ID: Sample Date:	A-66D GW-7462-020608-MJW-00 2/6/2008	A-66S 07GW-7462-020608-MJW-0086				A-70 GW-7462-020708-012
	Sumple Dute.	270/2000	2/6/2008	2/6/2008	2/6/2008	2/6/2008	2/7/2008
Paramet	ters Units	•					
Metals (Cont'd.)							
Manganese (Dissolved)	ug/L	, -	•	_	1 4	10200	799
Mercury	ug/L		3.1	2.1	0.57	70.6	54.0
Mercury (Dissolved)	ug/L	15.6	0.14 J	0.66	0.10 J	4.1	10.4
Nickel	ug/L	-	-	<u>-</u>	-	10.8 J	1.4 U
Nickel (Dissolved)	ug/L	-	-	-	-	3.8 B	1.7 B
Potassium	ug/L	-	-	-	<u>-</u>	34500	73400
Potassium (Dissolved)	ug/L	-	-	-	-	34100	71800
Selenium	ug/L		-	**	-	2.4 J	2.4 U
Selenium (Dissolved)	ug/L		-	-	-	2.4 U	2.4 U
Silver	ug/L		-	-		13.4	0.85 B
Silver (Dissolved)	ug/L		-	-	-	2.0 B	0.69 B
Sodium	ug/L		-	-	-	226000	234000
Sodium (Dissolved)	ug/L		~	~	-	228000	231000
Thallium	ug/L		-	-	-	2.3 U	2.3 U
Thallium (Dissolved)	ug/L	-	-	-	-	3.1 J	2.3 U
Vanadium	ug/L		-	-	-	22.6 J	5.8 J
Vanadium (Dissolved)	ug/L	-	-	-	-	0.89 U	0.89 U
Zinc	ug/L	•	-	=	· -	21.2 B	16.6 B
Zinc (Dissolved)	ug/L	-	-	-	-	3.9 U	7.0 B

Sample Locati Sample i Sample Da	ID:	A-70 GW-7462-020708-013 2/7/2008 Duplicate	A-71 GW-7462-020708-014 2/7/2008	A-75 GW-7462-020708-015 2/7/2008	A-77 GW-7462-020708-017 2/7/2008	CARBON-INFLUENT GW-7462-020808-019 2/8/2008	STATION-G SW-7462-020808-MJW-009 2/8/2008
Parameters	Units	Dupticute					4 4 2000
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	1 U	4.17				
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	ug/L	270	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1 U	130	3900	1 U	35	1 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	2600	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	1 U	1000	19000	6	470	" 1U
1,2-Dichloropropane	ug/L ug/L	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	ug/L	330	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L ug/L		190	1700	. 1	52	1 U
2-Butanone (Methyl Ethyl Ketone)	ug/L ug/L	3600	4100	21000	12	610	1 U
2-Hexanone	ug/L ug/L	5 U 5 U	5 U	13 K	5 U	5 U	5 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ke	tourg/I		5 U	5 U	5 U	5 U	5 U
Acetone	ug/L ug/L	5 U	5 U	3 K	5 U	5 U	5 U
Benzene	ug/L ug/L	5 U	5 U	12 K	5 U	5 U	5 U
Bromodichloromethane	ug/L	3400	570	75000	5	870	0.7 U
Bromoform	ug/L	1 U	1 U	1 U	1 U	1 U	
Bromomethane (Methyl Bromide)	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
Carbon disulfide	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
Carbon tetrachloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	1 U	1 U	1 U	iu	10	1 U
Chloroethane	ug/L	9300	3000	130000	42	1400	5.2
Chloroform (Trichloromethane)	ug/L	1 U	1 U	1 U	1 U	1400 1 U	1 U
Chloromethane (Methyl Chloride)	ug/L	3	2	1 U	1 U	12	1 U
cis-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	12 1 U	3.7
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	2	1 U
Cyclohexane	ug/L	1 U	1 U	1 U	1 U		1 U
Dibromochloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane (CFC-12)	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
Methyl acetate	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
Methyl cyclohexane Methyl Tert Butyl Ether	ug/L	1 U	1 U	6 K	_	1 U	1 U
Mothylone ablanta	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
Methylene chloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
				10	1 U	1 U	1 U

	ocation: aple ID: le Date:	A-70 GW-7462-020708-013 2/7/2008 Duplicate	A-71 GW-7462-020708-014 2/7/2008	A-75 GW-7462-020708-015 2/7/2008	A-77 GW-7462-020708-017 2/7/2008	CARBON-INFLUENT GW-7462-020808-019 2/8/2008	STATION-G SW-7462-020808-MJW-009 2/8/2008
Parameters	Units	·					
Volatiles (Con'td.)							
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	ug/L	3	1 U	3 K	1 U	9	7.5
Toluene	ug/L	1 U	1 U	42 K	1 U	1 U	7.5 1 U
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	ug/L	3	1	1 U	1 U	5	1 U
Trichlorofluoromethane (CFC-11)	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
Trifluorotrichloroethane (Freon 113)	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	ug/L	26	24	4 K	1 U	52	1 U
Xylene (total)	ug/L	2	1 U	2 K	1 U	1 U	1 U
	-				10	10	10
Metals							
Aluminum	ug/L	1470 K	2920 K	963 K	2700 K	2450 K	
Aluminum (Dissolved)	ug/L	19.2 B	17.5 B	14.1 B	14.4 B	12.2 B	25.6 B
Antimony	ug/L	2.3 U	2.3 U	7.2 J	3.9 [8.5]	25.6 B
Antimony (Dissolved)	ug/L	2.3 U	2.3 U	5.2 J	3.2 J	2.3 U	2.3 U
Arsenic	ug/L	1.8 U	4.5 J	27.8	14.0	95.9	2.3 0
Arsenic (Dissolved)	ug/L	1.8 U	1.8 Ú	12.4	7.4 J	1.8 U	1.8 U
Barium	ug/L	6.5 J	19.9 [501	325	196 J	-
Barium (Dissolved)	ug/L	4.6 J	14.1 J	493	321	106 J	48.8 J
Beryllium	ug/L	0.18 U	0.29 B	0.18 U	0.18 U	2.4 B	-
Beryllium (Dissolved)	ug/L	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Cadmium	ug/L	0.32 U	0.32 U	7.1	2.6 B	12.2	-
Cadmium (Dissolved)	ug/L	0.32 U	0.32 U	5.6	2.3 B	1.1 B	0.32 U
Calcium	ug/L	27500	97900	93700	95000	28200	-
Calcium (Dissolved)	ug/L	27100	102000	92900	95200	32400	20100
Chromium Total	ug/L	1.8 J	4.1 J	4.6 J	17.8	542	-
Chromium Total (Dissolved)	ug/L	0.57 U	0.83 B	0.84 B	0.57 U	1.7 B	8.7 [
Cobalt	ug/L	2.0 J	4.2 J	1.1 J	3.6 J	84.6	,
Cobalt (Dissolved)	ug/L	1.1 U	2.0 J	2.0 J	2.6 J	59.1	1.5 J
Copper	ug/L	3.7 B	9.4 J	9.4 J	9.7 [6.3 B	,
Copper (Dissolved)	ug/L	0.87 U	0.87 U	2.9 J	0.94 J	1.2]	0.97 B
Iron	ug/L	4150	10000	243000	134000	443000	-
Iron (Dissolved)	ug/L	122 B	208	218000	127000	907	71.8 B
Lead	ug/L	2.8 B	3.4 B	1.4 U	1.4 U	1.4 U	-
Lead (Dissolved)	ug/L	1.4 U	1.4 U	6.9 U	6.9 U	1.4 U	1.4 U
Magnesium	ug/L	29800	47800	99000	29700	17100	-
Magnesium (Dissolved)	ug/L	28400	48700	96200	29700	20900	18300
Manganese	ug/L	785	2840	3850	1040	6500	-

	Sample Location: Sample ID: Sample Date:	A-70 GW-7462-020708-013 2/7/2008 Duplicate	A-71 GW-7462-020708-014 2/7/2008	A-75 GW-7462-020708-015 2/7/2008	A-77 GW-7462-020708-017 2/7/2008	CARBON-INFLUENT GW-7462-020808-019 2/8/2008	STATION-G SW-7462-020808-MJW-009 2/8/2008
Parameter	rs Units						
Metals (Cont'd.)							
Manganese (Dissolved)	ug/L	757	2940	3660	1010	6950	841
Mercury	ug/L	33.2	85.6	0.66	0.43	178	7.9
Mercury (Dissolved)	ug/L	9.6	5.5	0.17 J	0.21	4.1	1.0
Nickel	ug/L	1.4 U	4.2 J	4.4 J	7.2 J	10.3 J	-
Nickel (Dissolved)	ug/L	1.7 B	3.9 B	3.6 B	4.7 B	6.0 B	3.2 J
Potassium	ug/L	75000	62300	13400	8810	1440000	-
Potassium (Dissolved)	ug/L	72000	57700	12900	8060	1440000	133000
Selenium	ug/L	2.4 U	2.4 U	2.4 U	2.4 U	21.2	-
Selenium (Dissolved)	ug/L	2.4 U	2.4 U	2.4 U	2.4 U	5.3	2.4 U
Silver	ug/L	1.2 B	5.7 J	3.1 J	4.7 J	2.1 B	-
Silver (Dissolved)	ug/L	0.61 B	1.3 B	2.1 B	0.81 B	2.2 B	0.41 U
Sodium	ug/L	239000	280000	710000	54000	1160000	_
Sodium (Dissolved)	ug/L	231000	276000	706000	56300	1160000	507000
Thallium	ug/L	2.3 U	2.3 U	5.6 J	2.3 U	8.7 J	-
Thallium (Dissolved)	ug/L	2.3 U	2.3 U	5.3 J	4.5 J	2.3 U	2.3 U
Vanadium	ug/L	4.6 J	8.6 J	8.6 J	36.6 J	368	-
Vanadium (Dissolved)	ug/L	0.89 U	0.89 U	5.4 J	2.7 J	0.89 U	1.2 J
Zinc	ug/L	14.3 B	22.6 B	5.6 B	84.5	13.8 B	-
Zinc (Dissolved)	ug/L	16.1 B	16.4 B	5.1 B	26.0 B	11.9 B	10.1 B

Sample Location		STATION-G	STATION-H	STATION-I	STATION-J	STATION-K	STATION-L
Sample II Sample Date		2/8/2008	2/8/2008	3 SW-7462-020808-MJW-007 2/8/2008	2/8/2008	SW-7462-020808-MJW-005 2/8/2008	2/8/2008
Parameters	Units	Duplicate					
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U -	1 U
1,1,2-Trichloroethane	ug/L		1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	ug/L		1 U	7.4	23	52	29
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L	1 U	. 3.1	38	120	240	280
1,2-Dichloroethane	ug/L		1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	ug/L	1 U	1 U	9.0	26	51	43
1,4-Dichlorobenzene	ug/L	1 U	2.7	33	160	300	440
2-Butanone (Methyl Ethyl Ketone)	ug/L		5 U	5 U	5 U	5 U	5 U
2-Hexanone	ug/L	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ket		5 U	5 U	5 U	5 U	5 U	5 U
Acetone	ug/L		5 U	5 U	3]	3 [3 J
Benzene	ug/L	0.7 U	0.7 U	0.7 U	4.6	13	110
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane (Methyl Bromide)	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
Carbon disulfide	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
Carbon tetrachloride	ug/L	6.8	4.9	1.9	8.7	7.1	3.0
Chlorobenzene	ug/L	1 U	1 U	7.3	96	170	430
Chloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform (Trichloromethane)	ug/L	4.8	3.7	1 U	2.3	2.1	1.2
Chloromethane (Methyl Chloride)	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	ug/L	1 U .	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane (CFC-12)	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
Methyl acetate	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
Methyl cyclohexane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
Methyl Tert Butyl Ether	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
Methylene chloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U

Sample Locati		STATION-G	STATION-H	STATION-I	STATION-J	STATION-K	STATION-L
Sample	ID:		0 SW-7462-020808-MJW-008				
Sample Da	rte:	2/8/2008	2/8/2008	2/8/2008	2/8/2008	2/8/2008	2/8/2008
D	**	Duplicate					
Parameters	Units						
<i>Volatiles (Con'td.)</i> Styrene	/*	4 **					
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	ug/L	8.1	5.7	3.0	2.4	3.4	1 U
trans-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	1 U 1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene Trichlorofluoromethane (CFC-11)	ug/L	1 U	1 U 1 U	1 U	1 U	1 U	1 U
Trifluorotrichloroethane (Freon 113)	ug/L	1 U		1 U	1 U	1 U	1 U
Vinyl chloride	ug/L		1 U	1 U	1 U	1 U	1 U
Xylene (total)	ug/L	1 U 1 U	1 U	1 U	1 U	1 U	1.1
Aylene (total)	ug/L	10	1 U	1 U	1 U	1 U	1 U
Metals							
Aluminum	ug/L	-	-	-	-	-	-
Aluminum (Dissolved)	ug/L	20.6 B	10.7 B	15.6 B	20.3 B	8.8 U	8.8 U
Antimony	ug/L	-	-	-	-	-	-
Antimony (Dissolved)	ug/L	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U
Arsenic	ug/L	-	-	-	-	-	-
Arsenic (Dissolved)	ug/L	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
Barium	ug/L	-	-	-	-	-	-
Barium (Dissolved)	ug/L	47.6 J	48.2 J	44.2 J	49.1 J	41.6 J	40.6 J
Beryllium	ug/L	•	-	-	-	. .	-
Beryllium (Dissolved)	ug/L	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Cadmium	ug/L	-	-	-	÷ <u>-</u>	-	-
Cadmium (Dissolved)	ug/L	0.47 J	0.32 U	0.32 U	0.32 U	0.38 J	0.32 U
Calcium	ug/L	•	-	**	-	-	-
Calcium (Dissolved)	ug/L	19900	22100	39100	47900	54300	52800
Chromium Total	ug/L	-	-	-	-	. *	-
Chromium Total (Dissolved)	ug/L	8.4 J	4.0 B	1.4 B	1.6 B	1.4 B	1.8 B
Cobalt	ug/L	-	-	-	-	-	-
Cobalt (Dissolved)	ug/L	1.5 J	1.9 J	6.6 J	13.0 J	18.5 J	9.9 J
Copper	ug/L	-	-	-	*	-	-
Copper (Dissolved)	ug/L	1.3 B	1.6 B	1.6 B	1.9 B	1.2 B	1.4 B
Iron	ug/L	- 		-	-		
Iron (Dissolved)	ug/L	24 U	24.2 U	28.0 B	27.9 B	61.1 B	45.0 B
Lead (Disselved)	ug/L		-	-		-	-
Lead (Dissolved)	ug/L	1.5 B	1.4 U	1.4 U	1.5 B	1.4 U	1.4 U
Magnesium (Dissals et 1)	ug/L	-	*	~	-	-	-
Magnesium (Dissolved)	ug/L	18100	20300	33200	34200	41700	38800
Manganese	ug/L	-	-	-	-	*	-

TABLE 2 Page 12 of 15

	Sample Location: Sample ID: Sample Date:	STATION-G SW-7462-020808-MJW-0 2/8/2008 Duplicate	STATION-H 010 SW-7462-020808-MJW-008 2/8/2008	STATION-I SW-7462-020808-MJW-007 2/8/2008	STATION-J 7 SW-7462-020808-MJW-006 2/8/2008	STATION-K SW-7462-020808-MJW-005 2/8/2008	STATION-L SW-7462-020808-MJW-004 2/8/2008
Parameter	rs Uni	its					
Metals (Cont'd.)					:	0.000	10200
Manganese (Dissolved)	ug,	/L 825	1240	4030	7220	8070	2.1
Mercury	ug,	/L 11.6	13.3	1.4	18.8	0.15 J	0.10 U
Mercury (Dissolved)	ug,	/L 0.88	0.80	0.10 U	0.10 U	0.10 U	0.10 C
Nickel	ug,	/L -	-	-	-		9.4 [
Nickel (Dissolved)	ug,	/L 2.6 J	3.3 J	8.0 J	10.0 J	15.2 J	7.4 }
Potassium	ug,	/L -	-	-	-	2,000	37300
Potassium (Dissolved)	ug	/L 124000	150000	29100	38600	36800	37300
Selenium	ug	/L -	-	-		~ ~ ~ ~	3.2 J
Selenium (Dissolved)	ug,	/L 2.4 U	4.0 J	2.4 U	2.4 U	3.2 J	3.2 j -
Silver	ug		-	-		101	1.3 [
Silver (Dissolved)	ug	/L 0.41 U	0.41 U	0.41 U	0.96 J	1.3 J	1.5)
Sodium	ug,		-	-	2.40000	426000	340000
Sodium (Dissolved)	ug,		590000	301000	348000		34000
Thallium	ug		- .	-	-	2211	4.3 [
Thallium (Dissolved)	ug		2.3 U	2.3 U	2.3 U	2.3 U	4.5)
Vanadium	ug		≖	-		0.89 U	0.89 U
Vanadium (Dissolved)	ug		1.4 J	0.89 U	0.89 U	0.09 U	-
Zinc	ug		-	- 0.4 P	- 1/ 1 D	24.6 B	9.7 B
Zinc (Dissolved)	ug	/L 18.8 B	12.1 B	9.4 B	16.1 B	24.0 D).i U

Sample Locatio Sample II Sample Dat	D:	STATION-M SW-7462-020808-MJW-003 S 2/8/2008	STATION-N SW-7462-020808-MJW-002 2/8/2008	SYSTEM-EFFLUENT GW-7462-020808-018 2/8/2008	
Parameters	Units				
Volatile Organic Compounds					
1,1,1-Trichloroethane	ug/L	1 U	1 U	, 1 U	
1,1,2,2-Tetrachloroethane	ug/L		1 U	1 U	
1,1,2-Trichloroethane	ug/L		1 U	1 U	
1,1-Dichloroethane	ug/L		1 U	1 U	
1,1-Dichloroethene	ug/L		1 U	1 U	
1,2,4-Trichlorobenzene	ug/L		2.2	1 U	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L		1 U	1 U	
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	1 U	1 U	1 U	
1,2-Dichlorobenzene	ug/L	48	11	1 U	
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	
1,3-Dichlorobenzene	ug/L	11	5.2	1 U	
1,4-Dichlorobenzene	ug/L	51	4.6	1 U	
2-Butanone (Methyl Ethyl Ketone)	ug/L	5 U	5 U	5 U	
2-Hexanone	ug/L	5 U	5 U	5 U	
4-Methyl-2-Pentanone (Methyl Isobutyl Kei	to: 110/L	5 U	5 U	5 U	
Acetone	ug/L	4 J	41	5 U	
Benzene	ug/L	36	0.7 U	0.7 U	
Bromodichloromethane	ug/L	1 U	1 U	1 U	
Bromoform	ug/L	1 U	1 U	1 U	
Bromomethane (Methyl Bromide)	ug/L	1 U	1 U	1 U	
Carbon disulfide	ug/L	1 U	1 U	1 U	
Carbon tetrachloride	ug/L	1 U	1 U	1 U	
Chlorobenzene	ug/L	48	1.5	1 U	
Chloroethane	ug/L	1 U	1.5 1 U	1 U	
Chloroform (Trichloromethane)	ug/L	1 U	1 U	1 U	
Chloromethane (Methyl Chloride)	ug/L	1 U	1 U	1 U	
cis-1,2-Dichloroethene	ug/L	1 U	1 U	1 U	
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	
Cyclohexane	ug/L ug/L	1 U	1 U	1 U	
Dibromochloromethane	ug/L ug/L	1 U	1 U		
Dichlorodifluoromethane (CFC-12)	ug/L ug/L	1 U	1 U	1 U	
Ethylbenzene	ug/L ug/L	1 U	1 U	1 U	
Isopropylbenzene	ug/L ug/L	1 U		1 U	
Methyl acetate		1 U	1 U	1 U	
Methyl cyclohexane	ug/L		1 U	1 U	
Methyl Tert Butyl Ether	ug/L	1 U	1 U	1 U	
Methylene chloride	ug/L	1 U	1 U	1 U	
meany iene chioride	ug/L	1 U	1 U	1 U	

TABLE 2

5	Sample Location: Sample ID: Sample Date:	STATION-M SW-7462-020808-MJV 2/8/2008	STATION-N W-003 SW-7462-020808-MJW-002 2/8/2008	SYSTEM-EFFLUENT GW-7462-020808-018 2/8/2008
Parameters	s Units	ı		
Volatiles (Con'td.)				
Styrene	ug/L	. 1 U	1 U	1 U
Tetrachloroethene	ug/L		1 U	1 U
Toluene	ug/I		1 U	1 U
trans-1,2-Dichloroethene	ug/I		1 U	1 U
trans-1,3-Dichloropropene	ug/L		1 U	1 U
Trichloroethene	ug/I		1 U	1 U
Trichlorofluoromethane (CI			1 U	1 U
Trifluorotrichloroethane (Fr	,		1 U	1 U
Vinyl chloride	ug/L		1 U	1 U
Xylene (total)	ug/L		1 U	1 U
Metals				
Aluminum	ug/L	,	-	8.8 U
Aluminum (Dissolved)	ug/L		32.3 B	20.6 B
Antimony	ug/L		-	2.3 U
Antimony (Dissolved)	ug/L		2.3 U	2.3 U
Arsenic	ug/L		-	1.8 U
Arsenic (Dissolved)	ug/L		1.8 U	1.8 U
Barium	ug/L	<u>-</u>	-	76.6 J
Barium (Dissolved)	ug/L	39.9 J	38.6 J	116 J
Beryllium	ug/L	<u>-</u>	-	0.18 U
Beryllium (Dissolved)	ug/L	0.18 U	0.96 J	0.18 U
Cadmium	ug/L	-	-	0.32 U
Cadmium (Dissolved)	ug/L	0.39 J	1.0 J	0.32 U
Calcium	ug/L	-	-	32800
Calcium (Dissolved)	ug/L	53300	52100	33500
Chromium Total	ug/L	-	<u></u>	1.5 J
Chromium Total (Dissolved			2.3 B	0.92 B
Cobalt	ug/L	-	-	61.9
Cobalt (Dissolved)	ug/L	7.6 J	5.6 J	63.6
Copper	ug/L	-	-	1.1 B
Copper (Dissolved)	ug/L	1.6 B	2.7 B	1.0 J
Iron	ug/L	-	-	83.7 J
Iron (Dissolved)	ug/L	61.6 B	52.3 B	74.6 B
Lead	ug/L	-	~	1.4 U
Lead (Dissolved)	ug/L	2.0 B	2.0 B	1.4 U
Magnesium	ug/L		-	22000
Magnesium (Dissolved)	ug/L	37400	35700	22200
Manganese	ug/L	-	-	7270

	Sample Location:	STATION-M	STATION-N	SYSTEM-EFFLUENT
	Sample ID:	•	3 SW-7462-020808-MJW-002	GW-7462-020808-018
	Sample Date:	2/8/2008	2/8/2008	2/8/2008
Parameter	rs Units			
Metals (Cont'd.)				
Manganese (Dissolved)	ug/L	8680	7570	7500
Mercury	ug/L	0.52	0.90	0.15 J
Mercury (Dissolved)	ug/L	0.10 U	0.10 U	0.10 U
Nickel	ug/L	-	-	7.7 J
Nickel (Dissolved)	ug/L	8.7 J	8.5 J	11.8 J
Potassium	ug/L	-	-	1440000
Potassium (Dissolved)	ug/L	40000	39500	1470000
Selenium	ug/L	-	-	5.4
Selenium (Dissolved)	ug/L	2.4 U	2.4 U	4.2 J
Silver	ug/L	-	-	1.7 B
Silver (Dissolved)	ug/L	1.2 J	1.5 J	2.1 B
Sodium	ug/L	-	-	1160000
Sodium (Dissolved)	ug/L	350000	334000	1180000
Thallium	ug/L	-		2.3 U
Thallium (Dissolved)	ug/L	2.5 J	4.8 J	2.6 J
Vanadium	ug/L	-	-	0.89 U
Vanadium (Dissolved)	ug/L	1.6 J	2.5 J	0.89 U
Zinc	ug/L	~	-	3.9 U
Zinc (Dissolved)	ug/L	6.7 B	3.9 U	9.5 B

Notes:

- = Not analyzed.
- B = Analyte detected in the associated blank a similar level.
- J = Estimated.
- K =The result may be biased high.
- U = Not detected.

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING SURROGATE RECOVERIES QUARTERLY PMP GROUNDWATER SAMPLING GLENN SPRINGS HOLDINGS, INC. DELAWARE CITY, DELAWARE FEBRUARY 2008

Parameter	Sample ID	Surrogates	Surrogate Recovery (percent)	Control Limits (percent)	Analytes	Sample Results	Units	Qualifier
Volatiles	GW-7462-020708-015	Toluene-d8	272	60-135	4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	3 J	μg/L	K
		4-Bromofluorobenzene	288	63-140	Methyl cyclohexane	6	μg/L	K
					Toluene	42	μg/L	K
					Tetrachloroethene	3	μg/L	K
					Xylene (total)	2	μg/L	K
					Acetone	12	μg/L	K
					Vinyl chloride	4	μg/L	K
					2-Butanone (Methyl Ethyl Ketone)	13	μg/L	K

Notes:

- J Estimated.
- K The result may be biased high.

QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE METHOD BLANKS QUARTERLY PMP GROUNDWATER SAMPLING GLENN SPRINGS HOLDINGS, INC. DELAWARE CITY, DELAWARE FEBRUARY 2008

Parameter	Analysis Date	Analyte	Blank Result	Sample ID	Sample Result	Qualified Result	Units
Metals	02/13/08	Zinc	3.98 J	GW-7462-020708-012	16.6 J	16.6 B	μg/L
				GW-7462-020708-013	14.3 J	14.3 B	μg/L
				GW-7462-020708-015	5.6 J	5.6 B	μg/L
				GW-7462-020808-019	13.8 J	13.8 B	μg/L
Metals	02/13/08	Silver (Dissolved)	0.464 J	GW-7462-020608-MJW-011	2.0 J	2.0 B	μg/L
				GW-7462-020708-012	0.69 J	0.69 B	μg/L
				GW-7462-020708-013	0.61 J	0.61 B	μg/L
				GW-7462-020708-014	1.3 J	1.3 B	μg/L
				GW-7462-020708-015	2.1 J	2.1 B	μg/L
				GW-7462-020708-016	1.0 J	1.0 B	μg/L
				GW-7462-020708-017	0.81 J	0.81 B	μg/L
				GW-7462-020808-018	2.1 J	2.1 B	μg/L
				GW-7462-020808-019	2.2 J	2.2 B	μg/L
Metals	02/14/08	Aluminum (Dissolved)	21.7 J	SW-7462-020808-MJW-002	32.3 J	32.3 B	μg/L
				SW-7462-020808-MJW-003	12.3 J	12.3 B	μg/L
				SW-7462-020808-MJW-006	20.3 J	20.3 B	μg/L
				SW-7462-020808-MJW-007	15.6 J	15.6 B	μg/L
				SW-7462-020808-MJW-008	10.7 J	10.7 B	μg/L
				SW-7462-020808-MJW-009	25.6 J	25.6 B	μg/L
				SW-7462-020808-MJW-010	20.6 J	20.6 B	μg/L
Metals	02/14/08	Chromium (Dissolved)	1.0 J	SW-7462-020808-MJW-002	2.3 J	2.3 B	μg/L
				SW-7462-020808-MJW-003	3.0 J	3.0 B	μg/L
				SW-7462-020808-MJW-004	1.8 J	1.8 B	μg/L
				SW-7462-020808-MJW-005	1.4 J	1.4 B	μg/L
				SW-7462-020808-MJW-006	1.6 J	1.6 B	μg/L
				SW-7462-020808-MJW-007	1.4 J	1.4 B	μg/L
				SW-7462-020808-MJW-008	4.0 J	4.0 B	μg/L
Metals	02/14/08	Zinc (Dissolved)	4.07 J	SW-7462-020808-MJW-003	6.7 J	6.7 B	μg/L
				SW-7462-020808-MJW-004	9.7 J	9.7 B	μg/L
				SW-7462-020808-MJW-006	16.1 J	16.1 B	μg/L
				SW-7462-020808-MJW-007	9.4 J	9.4 B	μg/L
				SW-7462-020808-MJW-008	12.1 J	12.1 B	μg/L
				SW-7462-020808-MJW-009	10.1 J	10.1 B	μg/L
				SW-7462-020808-MJW-010	18.8 J	18.8 B	μg/L

Note

B Analyte detected in the associated blank at a similar level.

J Estimated.

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING MATRIX SPIKE RECOVERIES QUARTERLY PMP GROUNDWATER SAMPLING GLENN SPRINGS HOLDINGS, INC. DELAWARE CITY, DELAWARE FEBRUARY 2008

Analyte	Spike ID	MS Recovery (percent)	Control Limits (percent)	Associated Samples	Sample Results	Units	Qualifier
Aluminum	GW-7462-020608-MIW-011	128	75-125	GW-7462-020608-MJW-011	4730	μg/L	K
	•			GW-7462-020708-012	1750	μg/L	K
				GW-7462-020708-013	1470	μg/L	K
				GW-7462-020708-014	2920	μg/L	K
				GW-7462-020708-015	963	μg/L	K
				GW-7462-020708-016	1070	μg/L	K
				GW-7462-020708-017	2700	μg/L	K
				GW-7462-020808-019	2450	μg/L	K

Notes:

K The result may be biased high.

MS Matrix Spike.

QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE FIELD BLANKS QUARTERLY PMP GROUNDWATER SAMPLING GLENN SPRINGS HOLDINGS, INC. DELAWARE CITY, DELAWARE FEBRUARY 2008

Parameter	Blank Date	Analyte	Blank Result	Sample ID	Sample Result	Qualified Sample Result	Units
Metals	02/05/08	Beryllium	0.75 J	GW-7462-020608-MJW-011	0.81 J	0.81 B	μg/L
	02,00,00	227	,	GW-7462-020708-012	0.20]	0.20 B	μg/L
				GW-7462-020708-014	0.29 J	0.29 B	μg/L
				GW-7462-020808-019	2.4 J	2.4 B	μg/L
Metals	02/05/08	Cadmium	0.82 J	GW-7462-020608-MJW-011	1.3 J	1.3 B	μg/L
1,100	02, 00, 00		0.0-1	GW-7462-020708-016	1.8 J	1.8 B	μg/L
				GW-7462-020708-017	2.6 J	2.6 B	μg/L
Metals	02/05/08	Copper	1.4 J	GW-7462-020708-012	4.5 J	4.5 B	μg/L
	,,		,	GW-7462-020708-013	3.7 J	3.7 B	μg/L
				GW-7462-020708-016	6.6 J	6.6 B	μg/L
				GW-7462-020808-018	1.1 J	1.1 B	μg/L
				GW-7462-020808-019	6.3 J	6.3 B	μg/L
Metals	02/05/08	Lead	1.5 J	GW-7462-020608-MJW-011	6.1	6.1 B	μg/L
				GW-7462-020708-012	3.1	3.1 B	μg/L
				GW-7462-020708-013	2.8 J	2.8 B	μg/L
				GW-7462-020708-014	3.4	3.4 B	μg/L
Metals	02/05/08	Silver	0.47 J	GW-7462-020708-012	0.85 J	0.85 B	μg/L
				GW-7462-020708-013	1.2 J	1.2 B	μg/L
				GW-7462-020808-018	1.7 J	1.7 B	μg/L
				GW-7462-020808-019	2.1 J	2.1 B	μg/L
Metals	02/05/08	Zinc	11.4 J	GW-7462-020608-MJW-011	21.2	21.2 B	$\mu g/L$
				GW-7462-020708-014	22.6	22.6 B	μg/L
				GW-7462-020708-016	22.6	22.6 B	μg/L
Metals	02/05/08	Aluminum (Dissolved)	24.8 J	GW-7462-020708-012	16.3 J	16.3 B	$\mu g/L$
				GW-7462-020708-013	19.2 J	19.2 B	μg/L
				GW-7462-020708-014	17.5 J	17.5 B	μg/L
				GW-7462-020708-015	14.1 J	14.1 B	μg/L
				GW-7462-020708-016	9.8 J	9.8 B	μg/L
				GW-7462-020708-017	14.4 J	14.4 B	μg/L
				GW-7462-020808-018	20.6 J	20.6 B	μg/L
				GW-7462-020808-019	12.2 J	12.2 B	μg/L

QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE FIELD BLANKS QUARTERLY PMP GROUNDWATER SAMPLING GLENN SPRINGS HOLDINGS, INC. DELAWARE CITY, DELAWARE FEBRUARY 2008

Parameter	Blank Date	Analyte	Blank Result	Sample ID	Sample Result	Qualified Sample Result	Units
Metals	02/05/08	Cadmium (Dissolved)	0.88 J	GW-7462-020708-016	1.6 J	1.6 B	$\mu g/L$
				GW-7462-020708-017	2.3 J	2.3 B	μg/L
				GW-7462-020808-019	1.1 J	1.1 B	μg/L
Metals	02/05/08	Chromium (Dissolved)	1.2 J	GW-7462-020608-MJW-011	0.93 J	0.93 B	μg/L
				GW-7462-020708-012	0.60 J	0.60 B	μg/L
				GW-7462-020708-014	0.83 J	0.83 B	μg/L
				GW-7462-020708-015	0.84 J	0.84 B	μg/L
				GW-7462-020808-018	0.92 J	0.92 B	μg/L
		,		GW-7462-020808-019	1.7 J	1.7 B	μg/L
Metals	02/05/08	Iron (Dissolved)	27.9 J	GW-7462-020708-012	127	127 B	μg/L
	, ,			GW-7462-020708-013	122	122 B	$\mu g/L$
				GW-7462-020808-018	74.6 J	74.6 B	μg/L
Metals	02/05/08	Nickel (Dissolved)	1.9 J	GW-7462-020608-MJW-011	3.8 J	3.8 B	μg/L
	, ,	,		GW-7462-020708-012	1.7 J	1.7 B	$\mu g/L$
				GW-7462-020708-013	1.7 J	1.7 B	μg/L
				GW-7462-020708-014	3.9 J	3.9 B	$\mu g/L$
				GW-7462-020708-015	3.6 J	3.6 B	$\mu g/L$
				GW-7462-020708-016	3.1 J	3.1 B	μg/L
				GW-7462-020708-017	4.7 J	4.7 B	μg/L
				GW-7462-020808-019	6.0 J	6.0 B	μg/L
Metals	02/05/08	Zinc (Dissolved)	7.1 J	GW-7462-020708-012	7.0 J	7.0 B	μg/L
	. ,	, ,		GW-7462-020708-013	16.1 J	16.1 B	μg/L
				GW-7462-020708-014	16.4 J	16.4 B	μg/L
				GW-7462-020708-015	5.1 J	5.1 B	μg/L
				GW-7462-020708-016	14.0 J	14.0 B	μg/L
				GW-7462-020708-017	26.0	26.0 B	μg/L
				GW-7462-020808-018	9.5 J	9.5 B	μg/L
				GW-7462-020808-019	11.9 J	11.9 B	μg/L

QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE FIELD BLANKS QUARTERLY PMP GROUNDWATER SAMPLING GLENN SPRINGS HOLDINGS, INC. DELAWARE CITY, DELAWARE FEBRUARY 2008

Parameter	Blank Date	Analyte	Blank Result	Sample ID	Sample Result	Qualified Sample Result	Units
Metals	02/08/08	Copper (Dissolved)	1.9 [SW-7462-020808-MIW-002	2.7 [2.7 B	μg/L
Metus	02/00/00	copper (Dissorted)	2.73	SW-7462-020808-MJW-003	1.6]	1.6 B	μg/L
				SW-7462-020808-MJW-004	1.4 J	1.4 B	μg/L
				SW-7462-020808-MJW-005	1.2 J	1.2 B	μg/L
				SW-7462-020808-MJW-006	1.9 J	1.9 B	μg/L
				SW-7462-020808-MJW-007	1.6]	1.6 B	μg/L
				SW-7462-020808-MJW-008	1.6 J	1.6 B	μg/L
				SW-7462-020808-MJW-009	0.97 J	0.97 B	μg/L
				SW-7462-020808-MJW-010	1.3 J	1.3 B	μg/L
Metals	02/08/08	Iron (Dissolved)	38.3 J	SW-7462-020808-MJW-002	52.3 J	52.3 B	μg/L
	,,	(,	SW-7462-020808-MJW-003	61.6 J	61.6 B	μg/L
				SW-7462-020808-MJW-004	45.0 J	45.0 B	μg/L
				SW-7462-020808-MJW-005	61.1 J	61.1 B	μg/L
				SW-7462-020808-MJW-006	27.9 J	27.9 B	μg/L
				SW-7462-020808-MJW-007	28.0 J	28.0 B	μg/L
				SW-7462-020808-MJW-009	71.8 J	71.8 B	μg/L
Metals	02/08/08	Lead (Dissolved)	1.9 [SW-7462-020808-MJW-002	2.0 J	2.0 B	μg/L
	,,			SW-7462-020808-MJW-003	2.0 J	2.0 B	μg/L
				SW-7462-020808-MJW-006	1.5 J	1.5 B	μg/L
				SW-7462-020808-MJW-010	1.5 J	1.5 B	μg/L
Metals	02/08/08	Zinc (Dissolved)	11.8 J	SW-7462-020808-MJW-005	24.6	24.6 B	μg/L

Notes:

B Analyte detected in the associated blank at a similar level.

J Estimated.



E-Mail Date: E-Mail To: April 3, 2008 John Garges

c.c.:

Sheri Finn E-Mail and Hard Copy if Requested

ANALYTICAL DATA ASSESSMENT AND VALIDATION
MONTHLY TRIBUTARY SAMPLING
GLENN SPRINGS HOLDINGS, INC.
DELAWARE CITY, DELAWARE
MARCH 2008

PREPARED BY:

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Sheri Finn [pga], April 3, 2008

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1.0 INTRODUCTION

The following document details an assessment and validation of analytical results reported by H2M Labs, Inc. (H2M) for groundwater samples collected in support of the Monthly Tributary Sampling Program at the Glenn Springs Holdings, Inc. (GSHI) Site in Delaware City, Delaware (Site). The samples were collected in March 2008.

The samples were analyzed for the following: target compound list (TCL) volatile organic compounds (VOCs); site specific parameter list (SSPL) metals; total and dissolved mercury, alkalinity, chloride, sulfate, and total suspended solids (TSS).

A sampling and analysis summary is presented in Table 1. A summary of the analytical data is presented in Table 2. The quality assurance/quality control (QA/QC) criteria by which these data have been assessed are outlined in the analytical methods and the documents entitled:

- Region III Modification to National Functional Guidelines for Organic Data Review, Multi-Media, Multi-Concentration (OLM01.0-OLM01.9), September 1994; and
- Region III Modifications to the Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analyses", April 1993.

Full Contract Laboratory Program (CLP)-equivalent raw data deliverables were provided by the laboratory. The data quality assessment and validation presented in the following subsections were performed based on the sample results and supporting QA/QC results provided. Data assessment was based on information obtained from final data sheets, method blank data, duplicate results, surrogate recoveries, blank/matrix spike recoveries, and field QA/QC samples.

2.0 SAMPLE HOLDING TIMES

The hold time periods are presented in the analytical methods. All samples were prepared and analyzed within the method required holding times.

All samples were properly preserved and cooled after collection.

1

3.0 SURROGATE SPIKE RECOVERIES - ORGANICS

In accordance with the method employed, all samples, blanks, and standards analyzed for VOCs were spiked with surrogate compounds prior to sample analysis. Surrogate recoveries provide a means to evaluate the effects of individual sample matrices on analytical efficiency and are assessed against method control limits.

Some surrogate recoveries could not be assessed for the VOCs due to required sample dilutions. All remaining surrogate recoveries met the method criteria demonstrating acceptable analytical accuracy.

4.0 METHOD BLANK ANALYSES

The purpose of assessing the results of method blank analyses is to determine the existence and magnitude of sample contamination introduced during analysis. Method blanks are prepared from deionized water and analyzed as samples.

For this study, method blanks were analyzed at a minimum frequency of one per analytical batch and the data were non-detect for the compounds of interest.

5.0 LABORATORY CONTROL SAMPLE (LCS)/BLANK SPIKE (BS) ANALYSES

LCS or BS samples are prepared and analyzed to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. LCS or BS samples were prepared and analyzed for all applicable parameters. The results were acceptable for all analytes spiked.

6.0 MATRIX SPIKE (MS) ANALYSES - INORGANICS

To evaluate the effects of sample matrices on the digestion, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS samples. The established control limits for inorganic MS recoveries are 75 to 125 percent. Spike recoveries are not assessed for samples having original concentrations significantly greater than the spike concentration (>four times) or when the spike concentration is diluted out due to matrix interference.

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All MS recoveries met the above criteria.

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7.0 DUPLICATE SAMPLE ANALYSES - INORGANICS

For inorganics, analytical precision is evaluated based on the analysis of duplicate samples. For this study, duplicate samples were prepared and analyzed by the laboratory at the proper frequency.

Laboratory duplicate results are assessed against a maximum relative percent difference (RPD) of 20 percent. Metals sample results less than five times the Contract Required Detection Limit (CRDL) are evaluated based on the difference between the sample and duplicate results, which should not exceed the CRDL.

The duplicate analyses met the above criteria.

8.0 MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) ANALYSES – VOCs

To evaluate the effects of sample matrices on the preparation, measurement procedures, and accuracy of organic parameters, samples are spiked with a known concentration of the analyte of concern and analyzed as MS samples. The laboratory prepared the spike samples in duplicate, to assess analytical precision. The laboratory established the MS/MSD control limits internally. Per the "Guidelines", qualification of data is not required if the sample results exceed four times the spike concentration added.

All MS/MSD analyses performed were acceptable, demonstrating good analytical accuracy and precision.

9.0 FIELD QA/QC

9.1 TRIP BLANK ANALYSES

One trip blank was submitted for analysis. The trip blank was non-detect for the compounds of interest with the exception of 1,4-dichlorobenzene. Associated sample results with concentrations similar to that found in the trip blank were qualified B (see Table 3).

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9.2 EQUIPMENT BLANK ANALYSES

One equipment blank was submitted for total and dissolved mercury analysis. The equipment blank was non-detect for the compounds of interest.

9.3 FIELD DUPLICATE ANALYSES

To assess the analytical and sampling precision, one field duplicate sample was collected and submitted "blind" to the laboratory, as indicated in Table 1. All results were comparable, demonstrating good field and laboratory precision.

10.0 CONCLUSION

Based on the assessment detailed in the foregoing, the data produced by H2M are acceptable with the specific qualifications noted herein.

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SAMPLE COLLECTION AND ANALYSIS SUMMARY MONTHLY TRIBUTARY SAMPLING GLENN SPRINGS HOLDINGS, INC. DELAWARE CITY, DELAWARE MARCH 2008

				Anai	lysis	/Pai	rame	ters	
Sample ID	Location ID	Collection Date (mm/dd/yy)	Collection Time (hr:min)	VOCs	Total Mercury	Dissolved Mercury	SSPL Metals	Natural Attenuation*	Comments
SW-7462-030608-RM-01	Station G	03/06/08	10:35	Х	Х	Х	Х	Х	
SW-7462-030608-RM-02	Station G	03/06/08	10:35	,,	X	′`	,,	, .	
SW-7462-030608-RM-03	Station S	03/06/08	11:15	Х		Χ	Х	Х	
SW-7462-030608-RM-04	Station S	03/06/08	11:15	,,	Х	,	,	,,	
SW-7462-030608-RM-05	Station T	03/06/08	11:45	Х		Χ	Χ	Х	
SW-7462-030608-RM-06	Station T	03/06/08	11:45		X				
SW-7462-030608-RM-07	Station U	03/06/08	12:15	Х	X	Χ	Χ	Х	
SW-7462-030608-RM-08	Station U	03/06/08	12:15		Χ				
SW-7462-030608-RM-09	Station V	03/06/08	12:50	Χ	Χ	Χ	Χ	Х	
SW-7462-030608-RM-10	Station V	03/06/08	12:50		Χ				
SW-7462-030608-RM-11	Station H	03/06/08	13:20	Х	Χ	Χ	Χ	Х	
SW-7462-030608-RM-12	Station H	03/06/08	13:20		Χ				
SW-7462-030608-RM-13	Station I	03/06/08	13:45	Х	Χ	Χ	Χ	Х	
SW-7462-030608-RM-14	Station I	03/06/08	13:45		Χ				
SW-7462-030608-RM-15	Station J	03/06/08	14:15	Χ	Χ	Χ	X	Χ	
SW-7462-030608-RM-16	Station J	03/06/08	14:15		Χ				
SW-7462-030608-RM-17	Station K	03/06/08	14:45	Χ	Χ	Χ	Χ	Χ	
SW-7462-030608-RM-18	Station K	03/06/08	14:45		Χ				
SW-7462-030608-RM-19	Station L	03/06/08	15:10	Χ	Χ	Χ	Χ	X	
SW-7462-030608-RM-20	Station L	03/06/08	15:10		Χ				
SW-7462-030708-RM-21	Station W	03/07/08	9:50	X	Χ	Χ	Χ	X	
SW-7462-030708-RM-22	Station W	03/07/08	9:50		Χ				
SW-7462-030708-RM-23	Station X	03/07/08	10:30	Χ	Χ	X	Χ	X	
SW-7462-030708-RM-24	Station X	03/07/08	10:30		Χ				
SW-7462-030708-RM-25	Station X Duplicate	03/07/08	10:40	Χ	Χ	X	X	X	Field duplicate of SW-7462-030708-RM-23
SW-7462-030708-RM-26	Station X Duplicate	03/07/08	10:40		Χ				Field duplicate of SW-7462-030708-RM-24
SW-7462-030708-RM-27	Station Y	03/07/08	11:20	X	Χ	Χ	Χ	X	
SW-7462-030708-RM-28	Station Y	03/07/08	11:20		Χ				
SW-7462-030708-RM-29	Station Z	03/07/08	11:40	X	Х	Χ	Χ	X	
SW-7462-030708-RM-30	Station Z	03/07/08	11:40		Х				
SW-7462-030708-RM-31	Station M	03/07/08	12:05	X	X	X	Χ	Х	
SW-7462-030708-RM-32	Station M	03/07/08	12:05		Х				
SW-7462-030708-RM-33	Station N	03/07/08	12:30	X	Χ	Χ	Χ	X	
SW-7462-030708-RM-34	Station N	03/07/08	12:30		Χ				
EB-7462-030708-RM-35	Equip. Blank	03/07/08	14:15			Χ	Χ		Equipment Blank
Trip Blank-7462-030708-01	Trip Blank	03/07/08	-	X					Trip Blank

Notes:

- Not applicable.

* Natural Attenuation are Alkalinity, Chloride, Sulfate and Total Suspended Solids(TSS).

SSPL Site-Specific Parameter List.

VOCs Volatile Organic Compounds.

TABLE 2

	Sample Location Sample ID Sample Date	STATION-G SW-7462-030608-RM-01 3/6/2008	STATION-G SW-7462-030608-RM-02 3/6/2008	STATION-H SW-7462-030608-RM-11 3/6/2008	STATION-H SW-7462-030608-RM-12 3/6/2008	STATION-I SW-7462-030608-RM-13 3/6/2008	STATION-I SW-7462-030608-RM-14 3/6/2008
Parameters	Units						
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	2 U	*	2 U	~	2 U	=
1,1,2,2-Tetrachloroethane	ug/L	2 U	-	2 U	~	2 U	*
1,1,2-Trichloroethane	ug/L	2 U	•	2 U	-	2 U	-
1,1-Dichloroethane	ug/L	2 U	-	2 U	-	2 U	-
1,1-Dichloroethene	ug/L	2 U	-	2 U	-	2 U	~
1,2,4-Trichlorobenzene	ug/L	2	-	2	-	7	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	2 U	-	2 U	-	2 U	**
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	2 U	-	2 U	~	2 U	-
1,2-Dichlorobenzene	ug/L	3	-	11	-	38	-
1,2-Dichloroethane	ug/L	2 U	-	2 U	-	2 U	**
1,2-Dichloropropane	ug/L	2 U	-	2 U	-	2 U	*
1,3-Dichlorobenzene	ug/L	1 J	-	2	-	8	-
1,4-Dichlorobenzene	ug/L	2 B		6	-	23	-
2-Butanone (Methyl Ethyl Ketone)	ug/L	5 U	-	5 U	-	5 U	-
2-Hexanone	ug/L	5 U	· <u>-</u>	5 U	-	5 U	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketor		5 U		5 U	-	5 U	
Acetone	ug/L	2 J	-	3 J	-	3 J	
Benzene	ug/L	0.7 U	-	0.7 U	-	0.7 U	
Bromodichloromethane	ug/L	2 U	-	2 U	-	2 U	
Bromoform	ug/L	2 U	-	2 U	•	2 U	w
Bromomethane (Methyl Bromide)	ug/L	2 U	**	2 U	-	2 U	-
Carbon disulfide	ug/L	2 U	-	2 U	-	2 U	-
Carbon tetrachloride	ug/L	4		9	-	2	<u></u>
Chlorobenzene	ug/L	2 U	-	2 U	-	3	•
Chloroethane	ug/L	2 U	-	2 U	-	2 U	-
Chloroform (Trichloromethane)	ug/L	2	~	6	-	2 U	-
Chloromethane (Methyl Chloride)	ug/L	2 U	-	2 U	-	2 U	mt .
cis-1,2-Dichloroethene	ug/L	2 U	-	2 U	-	2 U	-
cis-1,3-Dichloropropene	ug/L	2 U	-	2 U		2 U	-
Cyclohexane	ug/L	2 U	-	2 U	-	2 U	**
Dibromochloromethane	ug/L	2 U	-	2 U	-	2 U	*
Dichlorodifluoromethane (CFC-12)	ug/L	2 U	-	2 U	**	2 U	-
Ethylbenzene	ug/L	2 U	~	2 U	-	2 U	-
Isopropylbenzene	ug/L	2 U	-	2 U	-	2 U	-
Methyl acetate	ug/L	2 U	**	2 U	-	2 U	-
Methyl cyclohexane	ug/L	2 U	-	2 U	-	2 U	
Methyl Tert Butyl Ether	ug/L	2 U	-	2 U	=	2 U	-
Methylene chloride	ug/L	2 U	-	2 U		2 U	-
Styrene	ug/L	2 U	-	2 U	-	2 U	-
Tetrachloroethene	ug/L	7	AN .	8	-	3	-
Toluene	ug/L	2 U	-	2 U	-	2 U	-

	Sample Location		STATION-G	STATION-H	STATION-H	STATION-I	STATION-I
	,	SW-7462-030608-RM-01	SW-7462-030608-RM-02		SW-7462-030608-RM-12		
	Sample Date	3/6/2008	3/6/2008	3/6/2008	3/6/2008	3/6/2008	3/6/2008
Parameters	Units						
Volatile Organic Compounds (Cont'd.)							
trans-1,2-Dichloroethene	ug/L	2 U	-	2 U	~	2 U	-
trans-1,3-Dichloropropene	ug/L	2 U	-	2 U	-	2 U	-
Trichloroethene	ug/L	2 U	-	2 U	*	2 U	-
Trichlorofluoromethane (CFC-11)	ug/L	2 U	•	2 U	-	2 U	-
Trifluorotrichloroethane (Freon 113)	ug/L	2 U	~	2 U	-	2 U	-
Vînyl chloride	ug/L	2 U	-	2 U	-	2 U	-
Xylene (total)	ug/L	2 U	-	2 U	••	2 U	-
Metals							
Calcium	ug/L	19100	-	22800	-	37200	-
Manganese	ug/L	739	-	1340	•	3490	-
Mercury	ug/L	7.2	8.8	7.5	12.6	0.83	0.96
Mercury (Dissolved)	ug/L	0.91	-	1.3	~	0.10 U	-
Potassium	ug/L	112000	-	139000	•	40200	-
Sodium	ug/L	438000	-	563000		285000	-
General Chemistry							
Alkalinity, Total (As CaCO3)	mg/L	85.8	~	104	-	97.5	-
Carbonate	mg/L		*	1 U	-	1 U	-
Chloride	mg/L		-	900	-	432	~
Sulfate	mg/L		-	163	-	184	-
Total Suspended Solids (TSS)	mg/L	4		9	-	7	-

TABLE 2

	Sample Location Sample ID Sample Date	STATION-J SW-7462-030608-RM-1 3/6/2008	STATION-J 5 SW-7462-030608-RM-16 3/6/2008	STATION-K SW-7462-030608-RM-17 3/6/2008	STATION-K SW-7462-030608-RM-18 3/6/2008	STATION-L SW-7462-030608-RM-19 3/6/2008	STATION-L SW-7462-030608-RM-20 3/6/2008	STATION-M SW-7462-030708-RM-31 3/7/2008
Parameters	Units							
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	2 U	-	2 U	-	2 U		2 U
1,1,2,2-Tetrachloroethane	ug/L	2 U	-	2 U	-	2 U	~	2 U
1,1,2-Trichloroethane	ug/L	2 U	-	2 U	-	2 U		2 U
1,1-Dichloroethane	ug/L	2 U	-	2 U	-	2 U	-	2 U
1,1-Dichloroethene	ug/L	2 U	-	2 U	-	2 U		2 U
1,2,4-Trichlorobenzene	ug/L	19	-	56	~	12	*	7
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	2 U	-	2 U	-	2 U	-	2 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	2 U	-	2 U	-	2 U	- '	2 U
1,2-Dichlorobenzene	ug/L	110	**	260	-	120	•	110
1,2-Dichloroethane	ug/L	2 U	-	2 U	-	2 U	-	2 U
1,2-Dichloropropane	ug/L	2 U	-	2 U		2 U	-	2 U
1,3-Dichlorobenzene	ug/L	21	en.	61	-	21	-	19
1,4-Dichlorobenzene	ug/L	110	-	360	-	160	**	140
2-Butanone (Methyl Ethyl Ketone)	ug/L	5 U	-	5 U	-	5 U	-	5 U
2-Hexanone	ug/L	5 U	-	5 U	-	5 U	-	5 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketor		5 U	-	5 U	-	5 U	-	5 U
Acetone	ug/L	3 J	-	4 J	-	3 J	~	3 J
Benzene	ug/L	4	•	19	-	60	-	120
Bromodichloromethane	ug/L	2 U	~	2 U	-	2 U	-	2 U
Bromoform	ug/L	2 U	-	2 U	•	2 U	-	2 U
Bromomethane (Methyl Bromide)	ug/L	2 U	-	2 U	*	2 U	-	2 U
Carbon disulfide	ug/L	2 U	-	2 U	-	2 U	-	2 U
Carbon tetrachloride	ug/L	5	-	9	-	2	-	2 U
Chlorobenzene	ug/L	57	-	310	-	150	-	190 2 U
Chloroethane	ug/L	2 U	-	2 U	**	2 U	-	2 U
Chloroform (Trichloromethane)	ug/L	1 J	-	2	-	2 U	-	2 U
Chloromethane (Methyl Chloride)	ug/L	2 U	-	2 U	-	2 U	-	2 U
cis-1,2-Dichloroethene	ug/L	2 U	-	2 U		2 U		2 U
cis-1,3-Dichloropropene	ug/L	2 U	-	2 U	-	2 U	~	2 U
Cyclohexane	ug/L	2 U	-	2 U	-	2 U	-	2 U
Dibromochloromethane	ug/L	2 U	-	2 U	-	2 U	-	2 U
Dichlorodifluoromethane (CFC-12)	ug/L	2 U	-	2 U	-	2 U	-	2 U
Ethylbenzene	ug/L	2 U	-	2 U		2 U	-	2 U
Isopropylbenzene	ug/L	2 U	-	2 U	-	2 U	-	2 U
Methyl acetate	ug/L	2 U		2 U	-	2 U	~	2 U
Methyl cyclohexane	ug/L	2 U	-	2 U	-	2 U	-	2 U
Methyl Tert Butyl Ether	ug/L	2 U	-	2 U	as.	2 U 2 U	-	2 U
Methylene chloride	ug/L	2 U	-	2 U	-		-	2 U
Styrene	ug/L	2 U	-	2 U		2 U 2 U	**	2 U
Tetrachloroethene	ug/L	2	-	4	*	2 U	-	2 U
Toluene	ug/L	2 U	-	2 U	-	2 U	=	20

	Sample Location	STATION-J	STATION-J	STATION-K	STATION-K	STATION-L	STATION-L	STATION-M
	Sample ID	SW-7462-030608-RM-15					SW-7462-030608-RM-20	
	Sample Date	3/6/2008	3/6/2008	3/6/2008	3/6/2008	3/6/2008	3/6/2008	3/7/2008
Parameters	Units							
Volatile Organic Compounds (Cont'd.)								
trans-1,2-Dichloroethene	ug/L	.2 U	*	2 U	-	2 U	w	2 U
trans-1,3-Dichloropropene	ug/L	2 U	-	2 U	-	2 U	-	2 U
Trichloroethene	ug/L	2 U	-	2 U	-	2 U	-	2 U
Trichlorofluoromethane (CFC-11)	ug/L	2 U	-	2 U	-	2 U	-	2 U
Trifluorotrichloroethane (Freon 113)	ug/L	2 U	-	2 U	-	2 U	-	2 U
Vinyl chloride	ug/L	2 U		2 U	-	1]	-	3
Xylene (total)	ug/L	2 U	-	2 U	-	2 U	-	2 U
Metals								
Calcium	ug/L	45700	~	49000	-	53100	-	55500
Manganese	ug/L	5920	-	6940	-	9410		9630
Mercury	ug/L	1.0	0.32	0.69	0.36	0.61	2.9	0.63
Mercury (Dissolved)	ug/L	0.10 U	-	0.10 U	•	0.10 U	-	0.10 U
Potassium	ug/L	47800		40500	-	44800	~	44500
Sodium	ug/L	327000	-	348000		348000	-	370000
General Chemistry								
Alkalinity, Total (As CaCO3)	mg/L	121	-	96.0	-	144	=	150
Carbonate	mg/L		-	1 U	~	1 U	-	1 U
Chloride	mg/L	488	-	571	-	501	=	527
Sulfate	mg/L	239	*	270	-	302	*	262
Total Suspended Solids (TSS)	mg/L	34	•	9	~	15	-	21

TABLE 2

	Sample Location Sample ID Sample Date	STATION-M SW-7462-030708-RM-32 3/7/2008	STATION-N SW-7462-030708-RM-33 3/7/2008	STATION-N SW-7462-030708-RM-34 3/7/2008	STATION-S SW-7462-030608-RM-03 3/6/2008	STATION-S SW-7462-030608-RM-04 3/6/2008	STATION-T SW-7462-030608-RM-05 3/6/2008	STATION-T SW-7462-030608-RM-06 3/6/2008
Parameters	Units							
Volatile Organic Compounds	Q. T. T.							
1,1,1-Trichloroethane	ug/L		2 U	-	2 U	-	2 U	
1,1,2,2-Tetrachloroethane	ug/L		2 U		2 U	м.	2 U	-
1,1,2-Trichloroethane	ug/L		2 U	**	2 U		2 U	-
1,1-Dichloroethane	ug/L	-	2 U	-	2 U	***	2 U	-
1,1-Dichloroethene	ug/L	•	2 U	· .	2 U	-	2 U	-
1,2,4-Trichlorobenzene	ug/L		2	-	2 U	-	2 U	•
1,2-Dibromo-3-chloropropane (DBCP)	ug/L		2 U	-	2 U	•	2 U	-
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	-	2 U	-	2 U	-	2 U	
1,2-Dichlorobenzene	ug/L	-	20	-	3	-	1 J	••
1,2-Dichloroethane	ug/L	.=	2 U	-	2 U	-	2 U	-
1,2-Dichloropropane	ug/L	-	2 U	-	2 U	-	2 U	
1,3-Dichlorobenzene	ug/L	-	6	-	2 U	-	2 U	.
1,4-Dichlorobenzene	ug/L		13	-	1 B		2 U	-
2-Butanone (Methyl Ethyl Ketone)	ug/L	-	5 U	· -	5 U	~	5 U	-
2-Hexanone	ug/L	. =	5 U	-	5 U	-	5 U	-
4-Methyl-2-Pentanone (Methyl Isobutyl Keton		' -	5 U	-	5 U	-	5 U	-
Acetone	ug/L	**	3 J	-	2 J	-	3 J	- ·
Benzene	ug/L	.=	7	-	0.7 U	-	0.7 U	-
Bromodichloromethane	ug/L	-	2 U	-	2 U	-	2 U	*
Bromoform	ug/L		2 U	-	2 U	~	2 U	-
Bromomethane (Methyl Bromide)	ug/L	-	2 U	+	2 U	**	2 U	-
Carbon disulfide	ug/L	· -	2 U	=	2 U	w	2 U 5	-
Carbon tetrachloride	ug/L	, -	2 U	-	7	-	2 U	-
Chlorobenzene	ug/L	-	6	-	2 U	-	2 U	-
Chloroethane	ug/L	· -	2 U	-	2 U	-		-
Chloroform (Trichloromethane)	ug/L	. =	2 U	-	5	-	4 2 U	-
Chloromethane (Methyl Chloride)	ug/L	<u></u>	2 U	-	2 U 2 U	-	2 U	<u>-</u>
cis-1,2-Dichloroethene	ug/L	. =	2 U	-	2 U	-	2 U	-
cis-1,3-Dichloropropene Cyclohexane	ug/L	-	2 U 2 U	-	2 U	-	2 U	-
Dibromochloromethane	ug/L	-	2 U	*	2 U	-	2 U	
Dichlorodifluoromethane (CFC-12)	ug/L	**	2 U	-	2 U	- -	2 U	_
• • • • • • • • • • • • • • • • • • • •	ug/L		2 U	-	2 U	-	2 U	_
Ethylbenzene Isopropylbenzene	ug/L	-	2 U	-	2 U		2 U	-
Methyl acetate	ug/L	-	2 U	~	2 U	-	2 U	_
Methyl cyclohexane	ug/L	-	2 U	-	2 U	_	2 U	w.
Methyl Tert Butyl Ether	ug/L ug/L	-	2 U	-	2 U	-	2 U	-
Methylene chloride	ug/L ug/L	- -	2 U	-	2 U	-	2 U	-
Styrene	ug/L ug/L	-	2 U	-	2 U		2 U	-
Tetrachloroethene	ug/L ug/L	-	2 U	-	10	-	14	
Toluene	ug/L ug/L	-	2 U	-	2 U	n .	2 U	-
TOTALLIC	ug/L	-	20	_	20		- -	

TABLE 2

	Sample Location Sample ID Sample Date	SW-7462-030708-RM-32	STATION-N SW-7462-030708-RM-33 3/7/2008	STATION-N SW-7462-030708-RM-34 3/7/2008	STATION-S SW-7462-030608-RM-03 3/6/2008	STATION-S SW-7462-030608-RM-04 3/6/2008	STATION-T SW-7462-030608-RM-05 3/6/2008	STATION-T SW-7462-030608-RM-06 3/6/2008
Parameters	Units							
Volatile Organic Compounds (Cont'd.)								
trans-1,2-Dichloroethene	ug/L	· •	2 U	-	2 U	-	2 U	-
trans-1,3-Dichloropropene	ug/L		2 U	-	2 U	-	2 U	-
Trichloroethene	ug/L	• •	2 U	-	2 U	-	2 U	-
Trichlorofluoromethane (CFC-11)	ug/L	-	2 U	-	2 U	-	2 U	**
Trifluorotrichloroethane (Freon 113)	ug/L	-	2 U		2 U	-	2 U	-
Vinyl chloride	ug/L	-	2 U	-	2 U		2 U	per:
Xylene (total)	ug/L	-	2 U	-	2 U	-	2 U	-
Metals								
Calcium	ug/L	-	54400	-	21400	*	19200	-
Manganese	ug/L	-	9510	-	892	-	512	-
Mercury	ug/L	0.52	0.86	0.78	11.1	12.1	22.2	37.2
Mercury (Dissolved)	ug/L	~	0.10 U	-	1.3	-	3.4	-
Potassium	ug/L	-	42200	•	89100	-	79600	-
Sodium	ug/L		359000	-	347000	-	273000	-
General Chemistry								
Alkalinity, Total (As CaCO3)	mg/L	-	156	-	82.2	-	89.8	•
Carbonate	mg/L		1 U	-	1 U	~	1 U	-
Chloride	mg/L		515		455	-	560	-
Sulfate	mg/L		265	-	114	NY	124	-
Total Suspended Solids (TSS)	mg/L	. -	23	-	4 U	~	9	-

	Sample Location Sample ID Sample Date	STATION-U SW-7462-030608-RM-07 3/6/2008	STATION-U SW-7462-030608-RM-08 3/6/2008	STATION-V SW-7462-030608-RM-09 3/6/2008	STATION-V SW-7462-030608-RM-10 3/6/2008	STATION-W SW-7462-030708-RM-21 3/7/2008	STATION-W SW-7462-030708-RM-22 3/7/2008	STATION-X SW-7462-030708-RM-23 3/7/2008
Parameters	Units							
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	2 U	-	2 U	-	2 U	-	2 U
1,1,2,2-Tetrachloroethane	ug/L	2 U	~	2 U	-	2 U	-	2 U
1,1,2-Trichloroethane	ug/L	2 U	-	2 U	-	2 U	-	2 U
1,1-Dichloroethane	ug/L	2 U	-	2 U	m	2 U	-	2 U
1,1-Dichloroethene	ug/L	2 U	-	2 U	-	2 U	-	2 U
1,2,4-Trichlorobenzene	ug/L	1 J	-	1 J	±	40	-	24
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	2 U	-	2 U	-	2 U		2 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	2 U	-	2 U	-	2 U	-	2 U
1,2-Dichlorobenzene	ug/L	5	-	6	-	210	-	170
1,2-Dichloroethane	ug/L	2 U	-	2 U	-	2 U	-	2 U
1,2-Dichloropropane	ug/L	2 U	-	2 U	-	2 U	-	2 U
1,3-Dichlorobenzene	ug/L	1 J	-	1 J	-	74	~	33
1,4-Dichlorobenzene	ug/L	2 B	-	3 B	-	260	-	190
2-Butanone (Methyl Ethyl Ketone)	ug/L	-5 U	-	5 U	-	5 U		5 U
2-Hexanone	ug/L	5 U	-	5 U	•	5 U	-	5 U
4-Methyl-2-Pentanone (Methyl Isobutyl Keto		5 U	-	5 U	-	5 U	-	5 U
Acetone	ug/L	3 J	-	3 J	- ,	3 J	-	3 J
Benzene	ug/L	0.7 U	-	0.7 U	-	18	•	24
Bromodichloromethane	ug/L	2 U	-	2 U	-	2 U	-	2 U
Bromoform	ug/L	2 U	-	2 U	~	2 U	-	2 U
Bromomethane (Methyl Bromide)	ug/L	2 U	-	2 U	-	2 U	-	2 U
Carbon disulfide	ug/L	2 U	-	2 U	**	2 U	au .	2 U
Carbon tetrachloride	ug/L	4		7	-	3	~	4
Chlorobenzene	ug/L	2 U	-	2 U	-	290	-	110
Chloroethane	ug/L	2 U	-	2 U	-	2 U	-	2 U
Chloroform (Trichloromethane)	ug/L	3	~	5		1 J	-	1 J
Chloromethane (Methyl Chloride)	ug/L	2 U	-	2 U	-	2 U	-	2 U
cis-1,2-Dichloroethene	ug/L	2 U	-	2 U	-	2 U	-	2 U
cis-1,3-Dichloropropene	ug/L	2 U	-	2 U	-	2 U	-	2 U
Cyclohexane	ug/L	2 U		2 U	-	2 U	-	2 U
Dibromochloromethane	ug/L	2 U	-	2 U	w.	2 U	-	2 U
Dichlorodifluoromethane (CFC-12)	ug/L	2 U	-	2 U	~	2 U	-	2 U
Ethylbenzene	ug/L	2 U	-	2 U	-	2 U	-	2 U
Isopropylbenzene	ug/L	2 U	*	2 U	~	2 U		2 U
Methyl acetate	ug/L	2 U	-	2 U	-	2 U	~	2 U
Methyl cyclohexane	ug/L	2 U	-	2 U	-	2 U	-	2 U
Methyl Tert Butyl Ether	ug/L	2 U		2 U	-	2 U	*	2 U
Methylene chloride	ug/L	2 U	-	2 U	-	2 U	-	2 U
Styrene	ug/L	2 U	~	2 U	-	2 U	~	2 U
Tetrachloroethene	ug/L	6	-	7	-	1 J	-	2
Toluene	ug/L	2 U	-	2 U	-	2 U	-	2 U

	Sample Location Sample ID Sample Date	STATION-U SW-7462-030608-RM-07 3/6/2008	STATION-U SW-7462-030608-RM-08 3/6/2008	STATION-V SW-7462-030608-RM-09 3/6/2008	STATION-V SW-7462-030608-RM-10 3/6/2008	STATION-W SW-7462-030708-RM-21 3/7/2008	STATION-W SW-7462-030708-RM-22 3/7/2008	STATION-X SW-7462-030708-RM-23 3/7/2008
Parameters	Units							
Volatile Organic Compounds (Cont'd.)								
trans-1,2-Dichloroethene	ug/L	2 U	_	2 U	···	2 U	•	2 U
trans-1,3-Dichloropropene	ug/L	2 U		2 U	-	2 U	-	2 U
Trichloroethene	ug/L	2 U	-	2 U		2 U	-	2 U
Trichlorofluoromethane (CFC-11)	ug/L	2 U	-	2 U	-	2 U	•	2 U
Trifluorotrichloroethane (Freon 113)	ug/L	2 U	-	2 U	-	2 U	-	2 U
Vinyl chloride	ug/L	2 U	_	2 U	-	2 U	*	2 U
Xylene (total)	ug/L	2 U	-	2 U	~	2 U	-	2 U
Metals								
Calcium	ug/L	24200	-	24600		58300	-	53300
Manganese	ug/L	1360	~	1390	**	9330	-	8860
Mercury	ug/L	7.0	7.6	7.8	12.8	0.27	0.20	1.4
Mercury (Dissolved)	ug/L	1.9	-	1.7	-	0.10 U	-	0.10 U
Potassium	ug/L	81900	-	105000	-	45900	-	42600
Sodium	ug/L	348000	-	440000	-	430000	•	372000
General Chemistry								
Alkalinity, Total (As CaCO3)	mg/L	91.0	-	98.8	-	122	-	130
Carbonate	mg/L		**	1 U		1 U	-	1 U
Chloride	mg/L	597		830	-	684	-	543
Sulfate	mg/L	139		147	-	188	-	256
Total Suspended Solids (TSS)	mg/L	5	.	6	-	12	-	20

	Sample Location Sample ID Sample Date	STATION-X SW-7462-030708-RM-25 3/7/2008 Duplicate	STATION-X SW-7462-030708-RM-24 3/7/2008	STATION-X SW-7462-030708-RM-26 3/7/2008 Duplicate
Parameters	Units			
Volatile Organic Compounds				
1,1,1-Trichloroethane	ug/L	2 U	-	-
1,1,2,2-Tetrachloroethane	ug/L	2 U	ev.	-
1,1,2-Trichloroethane	ug/L	2 U	-	-
1,1-Dichloroethane	ug/L	2 U		~
1,1-Dichloroethene	ug/L	2 U	w	-
1,2,4-Trichlorobenzene	ug/L	26	-	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	2 U	w	-
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	2 U	_	-
1,2-Dichlorobenzene	ug/L	170	-	
1,2-Dichloroethane	ug/L	2 U	-	-
1,2-Dichloropropane	ug/L	2 U	-	-
1,3-Dichlorobenzene	ug/L	33	-	-
1,4-Dichlorobenzene	ug/L	190	-	-
2-Butanone (Methyl Ethyl Ketone)	ug/L	5 U	-	-
2-Hexanone	ug/L	5 U	-	VPF
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone	e) ug/L	5 U	-	~
Acetone	ug/L	4 J	-	**
Benzene	ug/L	25	-	-
Bromodichloromethane	ug/L	2 U	-	-
Bromoform	ug/L	2 U	-	-
Bromomethane (Methyl Bromide)	ug/L	2 U	-	-
Carbon disulfide	ug/L	2 U	-	-
Carbon tetrachloride	ug/L	4	-	~
Chlorobenzene	ug/L	120	-	-
Chloroethane	ug/L	2 U	-	-
Chloroform (Trichloromethane)	ug/L	1 J	-	-
Chloromethane (Methyl Chloride)	ug/L	2 U	-	-
cis-1,2-Dichloroethene	ug/L	2 U	-	-
cis-1,3-Dichloropropene	ug/L	2 U	-	-
Cyclohexane	ug/L	2 U	*	-
Dibromochloromethane	ug/L	2 U	-	-
Dichlorodifluoromethane (CFC-12)	ug/L	2 U	-	-
Ethylbenzene	ug/L	2 U	-	-
Isopropylbenzene	ug/L	2 U	-	
Methyl acetate	ug/L	2 U	-	
Methyl cyclohexane	ug/L	2 U	-	-
Methyl Tert Butyl Ether	ug/L	2 U	-	-
Methylene chloride	ug/L	2 U	-	-
Styrene	ug/L	2 U	-	-
Tetrachloroethene	ug/L	2	-	-
Toluene	ug/L	2 U	-	-

Parameters	Sample Location Sample ID Sample Date Units	STATION-X SW-7462-030708-RM-25 3/7/2008 Duplicate	STATION-X SW-7462-030708-RM-24 3/7/2008	STATION-X SW-7462-030708-RM-26 3/7/2008 Duplicate
Volatile Organic Compounds (Cont'd.)				
trans-1,2-Dichloroethene	ug/L	2 U	-	-
trans-1,3-Dichloropropene	ug/L	2 U	-	-
Trichloroethene	ug/L	2 U		-
Trichlorofluoromethane (CFC-11)	ug/L	2 U	*	-
Trifluorotrichloroethane (Freon 113)	ug/L	2 U	-	-
Vinyl chloride	ug/L	2 U	-	-
Xylene (total)	ug/L	2 U	-	-
Metals				
Calcium	ug/L	53100	-	-
Manganese	ug/L	8830	-	-
Mercury	ug/L	1.1	0.85	0.76
Mercury (Dissolved)	ug/L	0.10 U	-	-
Potassium	ug/L	42000		-
Sodium	ug/L	368000	-	-
General Chemistry				
Alkalinity, Total (As CaCO3)	mg/L	122	-	-
Carbonate	mg/L	1 U	~	-
Chloride	mg/L	545	-	**
Sulfate	mg/L	257	-	-
Total Suspended Solids (TSS)	mg/L	20	-	-

Notes:

- Not analyzed.
- B Analyte detected in the associated blank at similar level.
- J Estimated.
- U Not detected.

QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE TRIP BLANK MONTHLY TRIBUTARY SAMPLING GLENN SPRINGS HOLDINGS, INC. DELAWARE CITY, DELAWARE MARCH 2008

Parameter	Blank Date	Analyte	Blank Result	Associated Sample ID	Sample Result	Sample Qualifier	Units
VOCs	03/07/08	1,4-Dichlorobenzene	1 J	SW-7462-030608-RM-01	2 J	2 B	ug/L
				SW-7462-030608-RM-03	1 J	1 B	ug/L
				SW-7462-030608-RM-07	2 J	2 B	ug/L
				SW-7462-030608-RM-09	3 J	3 B	ug/L

Notes:

B Analyte detected in the associated blank at similar level.

J Estimated.

VOCs Volatile Organic Compound.

SAMPLE ID: GW-7462-020508-MJW-001

SAMPLE TIME: 1045

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data: Project Name: 0)yy Delawar	e City			Date:	2-5	-04			
Ref. No.:	7462	- City			Personnel:	M. W	ayock			
Monitoring Well Data:					-					
*Well No.:	A - 4	49		9	Screen Length (ft):					
Measurement Point:				-	'ump Intake (ft) ⁽¹⁾ :					
Constructed Well Depth (ft):				Well	l Diameter, D (in): _					
*Measured Well Depth (ft):	34.	90		Well Screen V	olume, V _s (mL) ⁽²⁾ :					
Depth of Sediment (ft):				*Initial De	epth to Water (ft):	8.	64			
_			*Depth to	o Water after pu	ımp installed (ft):	8	64		_	
		Drawdown			•					
Pumping	Depth to	from Initial							Volume	No. of Well
Rate	Water	Water Level ⁽³⁾		Temperature	Conductivity	ORP	DO	Turbidity	Purged, Vp	Screen Volumes
Time (mL/min)	(ft)	(ft)	pН	°C	(mS/cm)	(mV)	(mg/L)	(NTU)	(mL)	Purged (4)
0930 470	8.65		5.04	14.9	2.75	160	3.38	687		
1000 475	8.66		5.18	15.6	2.58	138	2.97	135		
1005	4.66		5,19	15.6	2.58	136	2.98	98		
1010			5.21	15.6	2.58	135	3.00			
1015 475	8.65		5.23	15.7	2.57	133	3.04	65 49		
1025	0.00	 	5.24	15-6	2.58	132	.3.08	38		
10-2			2.07	13.0						
							<u> </u>			
							 			
									<u> </u>	

Notes

VOLPURGED= 6.5 gal

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 5-foot screen length, $V_s=p^*(D/2)^2(5^*12)^*(2.54)^3$

Ferrous Iron(Fe+2)= 0.0 m/L PID= 0.0 ppm

- (3) The drawdown from the initial water level should not exceed 0.3 ft.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = Vp/Vs.

 WATER QUALITY: Coo. Color Cess

72.70.75 Ap

SAMPLE ID: GW-7462-020508-MJW-002

SAMPLE TIME: 1210

MONITORING WELL RECORD FOR LOW-FLOW PURGING

rrojeci Duiu							. ~	- 4			
	Project Name: 0	Oxy Delawar	e City			Date:	<u> </u>				
	Ref. No.:	7462				Personnel:	M. h	layock			
						_					
Monitoring \											
	*Well No.:	A-4	14		5	Screen Length (ft):					
Meas	urement Point:				Depth to F	Pump Intake (ft) ⁽¹⁾ :					
Constructed 1	Well Depth (ft):				Well	l Diameter, D (in):					
*Measured Well Depth (ft): 40.05					Well Screen Volume, V _s (mL) ⁽²⁾ :						
Depth of Sediment (ft):					*Initial De	epth to Water (ft):	10	1.21		•	
				*Depth t	o Water after pu	ımp installed (ft):	10	. 20			
			Drawdown			•					
	Pumping	Depth to	from Initial							Volume	No. of Well
	Rate	Water	Water Level (3)		Temperature	Conductivity	ORP	DO	Turbidity	Purged, V p	Screen Volumes
Time	(mL/min)	(ft)	(ft)	pН	° C	(mS/cm)	(mV)	(mg/L)	(NTU)	(mL)	Purged (4)
1050	450	10.25		4.69	14.4	3.83	132	1.19	378		
1120	465			4.87	14.9	3.78	133	0.69	225		
1125		10.22		4.92	14.9	3.78	131	0.73	176		
1130				4.96	14.9	3.77	130	0-74	135		
1135	455			5.03	14.9	3.76	128	0.78	106		
1140		10.23		5.11	15.0	3.75	123	0.86	83		
1145	10-0-			5.15	15.0	3.76	119	0.95	69		
1150	455			5-17	14.9	5. 15	116	0.91	66		
-			 								
								1			
					-						

Notes

volpurged= 6.5 gal

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 5-foot screen length, $V_s = p^*(D/2)^{2*}(5*12)^*(2.54)^3$

Ferrous Iron(Fe+2)=0.0 mg/L PID= 0.0 ppm

- (3) The drawdown from the initial water level should not exceed 0.3 ft.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged= Vp/Vs.

 WATER QUALITY:

1 + 10155 Hg

	Έ,
	2
,	0
•	-2

SAMPLE ID: 6W-7462-0	20508-MJW	-003
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SAMPLE TIME: 1345

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:					,		. ہ				
	Project Name: C						2-5-	8			
	Ref. No.:	7462				Personnel: _	Μ. ω	ay ock			
Monitoring V	Vell Data:					-					
	*Well No.:	A-	-50		5	Screen Length (ft):					
Measi	Measurement Point:			Depth to P	ump Intake (ft) ⁽¹⁾ :						
Constructed Well Depth (ft):			Well	l Diameter, D (in):							
*Measured Well Depth (ft): 40.15				Well Screen V	olume, V _s (mL) ⁽²⁾ :						
Depth of Sediment (ft):					*Initial De	epth to Water (ft):	()	1.12			
*Depth				*Depth t	o Water after pu	ımp installed (ft):	11	.12			
			Drawdown			•				•	
	Pumping	Depth to	from Initial							Volume	No. of Well
	Rate	Water	Water Level (3)		Temperature	Conductivity	ORP	DO	Turbidity	Purged, V p	
Time	(mL/min)	(ft)	(ft)	pH	°C	(mS/cm)	(mV)	(mg/L)	(NTU)	(mL)	Purged ⁽⁴⁾
1230	470	11-11		9.22	15.7	1.74	16	7.33	745		
1300	445			9.18	16-9	2.70	<u>-38</u>	1.33			
1305		11.06		9.18	(7.0	2.79	-42	1.18	140		
1310	1100			9.19	17.0	5.83	-45	1.11	1/2		
1315	470	11 00	-	9.18	16.8	2.85	-48	1.09	83		
1320		11.09		9.19	16.1	2.85	-50	1.05	6 <u>2</u> 56		
1325				7.(7	16.6	2.85	-52	(.00	>℃		
 			 		-					-	
									 		
			<u> </u>								
otes:							VOL PUR	GED= 6	5 001		

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 5-foot screen length, $V_s = p^*(D/2)^2*(5*12)*(2.54)^3$

Ferrous Iron(Fe+2)=0.0 mg/L PID= 0.0 ppm

- (3) The drawdown from the initial water level should not exceed 0.3 ft.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be WATER QUALITY: clear, color 1e45 stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

sample 10: \$8-7462-020508-10W-005

sample time: 1625

SAMPLE ID: GW-7462-020508-10W-004	4

SAMPLE TIME: 1615

MONITORING WELL RECORD FOR LOW-FLOW PURG	ING
------------------------------------------	------------

Project Data:		01:			ъ.	2 (
Project Name: <u>Carantes Ref. No.:</u>	Oxy Delawar 7462	e City			Date: _ Personnel:	<u>J-:</u> M.	2-025 Warro	K		
Manitonina Wall Data					-				•	
Monitoring Well Data: *Well No.:	Λ.	270			Screen Length (ft):					
Measurement Point:		<u>~ 1 U</u>		Depth to I				•		
Constructed Well Depth (ft):				Well Diameter, D (in):						
*Measured Well Depth (ft):				Well Screen V	Volume, V_s (mL) ⁽²⁾ :					
Depth of Sediment (ft):		*Initial D	epth to Water (ft):	2	1.18		•			
-			*Depth to	o Water after p	ımp installed (ft):	2	1.18			
Pumping	Depth to	Drawdown from Initial							Volume	No. of Well
Rate Time (mL/min)	Water (ft)	Water Level (3) (ft)	pН	Temperature ° C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Purged, V _p (mL)	Screen Volumes Purged ⁽⁴⁾
1405 450	21.20		7.38	15.1	12.6	25	1.96	21		
1450 475	21.20		7.72	15.3	16.7	3	0.40	00		
1540	21.19		7.43	15.3	18.4	<u>-6</u>	0.35	0		
1545			7.41	15.3	18.5	-7	0.36	Ó		
1550 475			7.41	15, 3	18.5		0.35	0		
							-	 		

Notes

vol purged= 12.0 gal

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 5-foot screen length, $V_s=p^*(D/2)^2*(5*12)^*(2.54)^3$

Ferrous Iron(Fe+2)= O.D molL PID= O.D ppm

- (3) The drawdown from the initial water level should not exceed 0.3 ft.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged= Vp/Vs.

 WATER QUALITY:

Sing.

Filter SAMPLE ID: FB-7462-020805-MJW-001 SAMPLE TIME: 1230 blank MONITORING WELL RECORD FOR LOW-FLOW PURGING Project Data: Project Name: Oxy Delaware City 7462 Ref. No.: Monitoring Well Data: *Well No.: tributary & SW samples Screen Length (ft): Depth to Pump Intake (ft)(1): Measurement Point: Well Diameter, D (in): Constructed Well Depth (ft): *Measured Well Depth (ft): Well Screen Volume, V₅ (mL)⁽²⁾: *Initial Depth to Water (ft): Depth of Sediment (ft): *Depth to Water after pump installed (ft): Drawdown Pumping Depth to from Initial Volume No. of Well Rate Water Water Level (3) ORP Temperature Conductivity DOTurbidity Purged, Vp Screen Volumes "C Time (mL/min) (ft) (ft) (mS/cm) Purged (4) pH(mV)(mg/L)(NTU) (mL)002 1330 003 1340 004 1350 005 1400 [] 006 1410 11.0 MS/MSD-002 H 009 6 10 1430 1440 1450 Notes: VOL PURGED= (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom. (2) The well screen volume will be based on a 5-foot screen length, $V_s = p^*(D/2)^{2*}(5*12)^*(2.54)^3$ Ferrous Iron(Fe+2)= PID= (3) The drawdown from the initial water level should not exceed 0.3 ft. (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= Vp/Vs. WATER QUALITY:

H2M LABS, INC.

24548 EXTERNAL CHAIN OF CUSTODY

575 Bi	oad Ho	llow Ro	i, Melvilie,	, NY 11747	7-5076														
Tel: (6	31) 694	1-3040 F	ax: (631)	420-8436	;		CLIE	NT:										H2M SDG	NO:
PROJE	CT NAM	E/NUME	BER														NOTES:		Project Contact:
, C,	(y -	DE	City,	/740	62-F	10531	Sample Container Description										,		Paul Mc Mahon Phone Number:
		SUFF	ace	wate	er_														
SAMPL	ERS: (si	gnature).		CRA			S S	/00 5											716-297-6150 PIS/Quote#
DELIVE	RABLE	S:					-	/											
							9 6		AN.	IALY	SIS	REQI	JEST	ED			ŀ		
TURNA	ROUND	TIME:					Total No. of Containers	OR	GAN	IC					INOI	RG.			
DATE	TIME	MATRIX		FIEL	.D I.D.		1	ş	8 N	3 50 €		_			Metal	Z Ö	LAB i.i	D. NO.	REMARKS:
2-8-14		h)	trip	blank			12	X		<u> </u>									Jap blank
																_			ţ
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						<u> </u>													
						<u> ; ; ; ; ; ; ; ; ; ; ;</u>												· · ·	
Relinquis	ned by: (Si	gnature)		Date	Time	Received by: (Sig	nature)				D	ate	Ti	me			LABOR	ATORY USE O	NLY
Delinavia	1//	120		D-8-08	1500	Received by: (Sig	metime)				<u> </u>	ate	Ti				ncies Between Labels and		Hand Delivered Airbill#
rvoiniquisi	ned by: (Si	griature)		Date	111110	Nocested by. (5%	riewio/				١٦	ale	'"	1170		•	cord? Yor N	Ambient or chil Received in go	lled, Temp od condition: Y or N
Relinquis	ned by: (Si	gnature)		Date	Time	Received by: (Sig	nature)		_			ate	TI	me	Exp	lain:		4. Property presen	
																		COC Tape was:	erpackage: YorN
Relinquis	hed by: (Si	gnature)		Date	Time	Received by: (Sig	pnature)					ate	Ti	me	1 —			2. Unbroken on o	uter package: Y or N
																		Y or N	resent & complete upon sample receipt:

H2M LABS, INC.

24547 EXTERNAL CHAIN OF CUSTODY

575 Broad Hollow Rd, Melville, NY 11747-5076								
Tel: (631) 694-3040 Fax: (631) 420-8436	CLIE	NT:					H2M SDG	NO:
PROJECT NAME/NUMBER Oxy - DE City 7462-A0531 Surface water SAMPLERS: (signature)/Client CRA	Sample Container Description	000'S - Ha - Ha (+ Herel)	50 rolals A Hered			NOTES:		Project Contact: faul McMahon Phone Number: VG-297-6150 PIS/Quote #
DELIVERABLES:		> F ā	À					
	9. og	ANALYS	SIS REQU	JESTED				
TURNAROUND TIME:	Fotal No. of Containers	ORGANIC	, i		INORG			
DATE TIME MATRIX FIELD I.D.		VOA BNA PCB			Metal	LAB I.	D. NO.	REMARKS:
2-8-1930 W FB-7462-020408-MOW-001	4	$\times \times \times$	\times					Filter blank
24.04 1330 SW SW-746,2-020408-LOW-002	4	\times	\times					
24-08/240 SW KW-7412-020208-19021-003	14	\times	\times		-	<u> </u>		
24.04 1360 SW 4. +741,2-020474-MJW-MH	14		\times		ľ			
24-08/400 SW 4W-74(2-000408-MTW-005	1.4	\times	X		٠			
24-04-1410 SW SW-7462-020808-000W-000	4		\times					
24-02/1420 SW 41-74(2-020808-NOTW-007	14							
2-4-08/1430 SW SW-7412-02080A-MJW-00A	lià		X					MS/MSD
24-04-1440 SW KN7462-020AM-NOW-009	4		X					
24-04-1450 SW GW-7462-02080A-MOW-010	14		X					Field & dicate
Relinquished by: (Signature) Date Time Received by: (Signature)	nature)		Date	Time		LABOR	ATORY USE O	NLY
Relinquished by: (Signature) Date Time Received by: (Signature) Date Time Received by: (Signature)		1 11	Date Date	Time	Discrepancies Between Sample Labels and COC Record? Y or N Explain:		2. Ambient or chil	od condition: Y or N
THIS INCOMES BY, (or			2410	1 111100			COC Tape was:	
Relinquished by: (Signature) Date Time Received by: (Signature)	jnature)		Date	Time			2. Unbroken on o	er package: Y or N uter package: Y or N esent & complete upon sample receipt:

SAMPLE ID: 6W-7462-020608-MJW-006

SAMPLE TIME: 1040

Project Data	: Project Name: <u>(</u> Ref. No.: _	Oxy Delawar 7462	e City			Date: Personnel:					
Constructed V	*Well No.: _ urement Point: _ Well Depth (ft): _	A-2			S Depth to P Well						
	Vell Depth (ft): f Sediment (ft):	32	.60	*Depth to	*Initial De	ohume, V _s (mL) ⁽²⁾ : opth to Water (ft): mp installed (ft):	21.47				
Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level ⁽³⁾ (ft)	рН	Temperature ° C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V _p (mL)	No. of Well Screen Volumes Purged ⁽⁴⁾
0435 092 6 1005	455 460 480	21.45 21.47 21.47		5.65 5.65 5.68	16.0 16.1 16.2 16.2	1.00 0.96 0.95	156 142 136 132	1.56 1.84 2.05	0000		
1015	475	21.46		5.67 5.69	16.2	0.93	(3)	2.16	0		
									9-		
			-			ny sediment accumu	VOL PUR	GED= /2 vell bottom.	.0 ga	1	
(2) The well screen volume will be based on a 5-foot screen length, $V_5 = p^*(D/2)^{2*}(5*12)^*(2.54)^3$ Ferrous Iron(Fe+2)=0,0 mg/L PII (3) The drawdown from the initial water level should not exceed 0.3 ft. (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged=Vp/Vs. WATER QUALITY: Clear, Color (e44)										_PID= <i>0.</i>) bbw

SAMPLE ID: 6W-7462-020608-MJW-007

SAMPLE TIME: 1125

Project Data	ī:										
	Project Name:	Oxy Delawar	e City			Date:	2-	6-08			
	Ref. No.:	7462				Personnel:	M.	6-08 Wayoo	k		
Monitoring	Well Data:					-					
	*Well No.:	A-60	5 h		S	Screen Length (ft):					
Meas	surement Point:				De pth to P						
	Well Depth (ft):					Diameter, D (in):				•	
*Measured V	Vell Depth (ft):	60	0.00		Well Screen V	olume, V _s (mL) ⁽²⁾ :				•	
Depth o	of Sediment (ft):				*Initial De	epth to Water (ft):		14.07		•	
				*Depth to	o Water after pu	mp installed (ft):		14.07			
	Dunning	Danth 4-	Drawdown from Initial								
	Pumping Rate	Depth to Water	Jrom Initial Water Level (3)		Temperature	Conductivity	ORP	no	Tours die	Volume	No. of Well
Time	(mL/min)	(ft)	(ft)	pН	°C	(mS/cm)	(mV)	DO (mg/L)	(NTU)	(mL)	Screen Volumes Purged (4)
1045	400			6.48						·····	T #/3c#
1050	700	14.08	 	6.62	15.5	25.8 24.3	74	2.08	21000		
1055		(.00		6.64	15.4	23.5	56	0.59	>1000		
1100	400			6.66	15.4	23.9	50	0.50	>(000)		
1105		74.09		668	15.4	24.1	45	0.45	>/000		
1110				6.69	15.4	24.2	42	0.44	940		
1115	405			6.70	15.3	24.3	40	0.40	877		
				 				 	 		
							<u> </u>				
otes:							VOL PUR	GED= 3	.5 ga	1	
						ıy sedimen t a c cu mula	ated at the w	vell bottom.	•		
•	en volume will be		-		² *(5*12)*(2.54) ³		Ferrous Ir	on(Fe+2) =()Oma/L	PID= 0.0	PPM
,	vn from the initial										• •
						n purged (unless purg			turbid		
	to be clearing, or t to, of Well Screen '			e varying si		he stablization criteri WATER OUALIT					
			_ · P/ · u.			WATER QUALIT	" turk	010			

SAMPLE ID: GW-7462-020608-MTW-008

SAMPLE TIME: 1215

Project Data: Project Name: Oxy Ref. No.:	y Delaware 7462	e City	_ _		Date: _ Personnel: _	2-6 M. U	-08 Jayoc	k		
Monitoring Well Data: *Well No.: Measurement Point: Constructed Well Depth (ft):	A-6	6 <u>5</u>		Depth to P	creen Length (ft): ump Intake (ft) ⁽¹⁾ : Diameter, D (in):					
*Measured Well Depth (ft):	25	.10		Well Screen Vo	olume, V _s (mL) ⁽²⁾ :					
Depth of Sediment (ft):			*Depth to		pth to Water (ft): _ mp installed (ft):	_	4.57 4.57		-	
, ,	Depth to Water (ft)	Drawdown from Initial Water Level ⁽³⁾ (ft)	pН	Temperature ° C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V _p (mL)	No. of Well Screen Volumes Purged ⁽⁴⁾
1140	4,57		5.66 5.66	14.8	0.94	104	1.83 1.55 1.51	(07 60 27		
1146 470	4.57		5.66 5.66 5.66	14.9	0.80S 0.804 0.800	124	1.46	2 0		
								*		
Notes: (1) The pump intake will be placed at	the well scr	een mid-point or	at a minimu	im of 2 ft above an	ny sediment accumula	VOL PURO	GED= 3. ell bottom.	5 gal		
 (2) The well screen volume will be bas (3) The drawdown from the initial wa (4) Purging will continue until stabilizand appears to be clearing, or unlesstabilizing), No. of Well Screen Volume 	sed on a 5-fo ter level sho ation is achi ss stabilizat	oot screen length, ould not exceed 0. ieved or until 20 v ion parameters ar	V _s =p*(D/2) .3 ft. well screen v	² *(5*12)*(2.54) ³ vol:1mes have beer ightly outside of t	n purged (unless purg	Ferrous Iro ge water rem a and appear	n(Fe+2)= (ains visually to be	turbid	PID= O	Оррм

SAMPLE ID: GW-7462-020608-MJW-009

SAMPLE TIME: 1355

Project Data	Project Name:	Oxy Delawai 7462				Date: _ Personnel:	2-6 M	5-08			
	•					-					
Monitoring \											
	*Well No.:	A-G	7 D		S	creen Length (ft):					
Meas	urement Point:				Depth to P	ump Intake (ft) ⁽¹⁾ :					
Constructed V	Well Depth (ft):				Well	Diameter, D (in):				,	
	Vell Depth (ft):	6	2.50		Well Screen Vo	olume, V _s (mL) ⁽²⁾ :					
Depth o	f Sediment (ft):				*Initial De	pth to Water (ft):	(7.73			
•	` ` .			*Depth to		mp installed (ft):		7.74			
			Drawdown	•	•	•				•	
	Pumping	Depth to	from Initial							Volume	No. of Well
	Rate	Water	Water Level (3)		Temperature	Conductivity	ORP	DO	Turbidity	Purged, Vp	Screen Volumes
Time	(mL/min)	(ft)	(ft)	pН	°C	(mS/cm)	(mV)	(mg/L)	(NTU)	(mL)	Purged (4)
1315	450			5.68	152	1.34	125	3.14	>1000		1
1320		9.77		5.69	15.3	1.51	121	1.48	>1000		
1325				5.81	15.2	1.94	116	1.13	>/000		
1330	770			5.88	15.1	2.38	113	1.01	>1000		
1335		9.74		5.91	15.1	2.63	110	0.90	>(000		
1340				5.93	15.2	2.75	109	0.83	727		
(345	460			5.94	15.1	2.80	108	0.40	485		
1350		9.75		5.93	15.1	2.82	107	0.79	466		
					<u> </u>			<u> </u>			
								-	<u> </u>	<u> </u>	<u> </u>
			 					-	<u> </u>		
			 							 	
			 						 		
			<u> </u>							<u> </u>	
otes:	1				(0.6.1		VOL PUR	GED= 4	4.5 2	301	
			_			y sediment accumul	ated at the w	relibottom			^
,			oot screen length,		(5-12)-(2.54)		Ferrous Iro	on(Fe+2) = (15 mall	PID= O.Ĉ	PPM
,			ould not exceed 0.		alam on barre b						. (
						n purged (unless pur he stablization criteri	-	•	turbid		
• •	o. of Well Screen		•	e varying si	ightly outside of t	WATER QUALIT	Y: $+$	bid			
							, - ,	- 3			

SAMPLE ID: GW-7462-020608-MJW-010

SAMPLE TIME: 1445

Project Data	: Project Name: <u>(</u> Ref. No.: _	Oxy Delawar 7462	_ _			Date: Personnel:	2-6 M. (-08 Jayock				
Monitoring \	Well Data:					-						
J	*Well No.:	A-6	75		S	Screen Length (ft):						
Meas	urement Point:					ump Intake (ft) ⁽¹⁾ :						
Constructed V	Well Depth (ft):				Well	Diameter, D (in):						
*Measured W	Vell Depth (ft):	22	1.90		Well Screen V	olume, V _s (mL) ⁽²⁾ :						
Depth o	f Sediment (ft):				*Initial De	epth to Water (ft):		0.17				
-	•			*Depth to	o Water after pu	mp installed (ft):		0.16				
			Drawdown			•						
	Pumping Rate	Depth to Water	from Initial Water Level ⁽³⁾		Temperature	Conductivity	ORP	" DO	Turbiditu	Volume	No. of Well Screen Volumes	
Time	(mL/min)	(ft)	(ft)	pН	C C	(mS/cm)	(mV)	(mg/L)	(NTU)	(mL)	Purged (4)	
1405	475		T	6.01	15.2	1.46	80	3.54	>1000			
1410	1016		<u> = 99</u>	14.7	1.42	51	0.81	787				
1415				5.99	14.8	1.40	42	0.59	421			
1420	475	<u> </u>		5.99	14.9	1.39	36	0.52	243		·	
1430		10.18	 	5.99 6.00	15.1	1.39	31	0.49	142		 	
1720				6.20	(3,22	1, 30	_d_1	10.50	19		 	
			<u> </u>									
			<u> </u>		 			 		<u> </u>	 	
								 	*		 	
<u> </u>	L					L		<u> </u>	L	·		
Votes:							VOL PUR	GED= 3	.5 gal			
						ny sediment accumul	ateu at the v	ven bottom.	$\overline{}$			
	The well screen volume will be based on a 5-foot screen length, $V_s = p^*(D/2)^2 + (5^*12)^*(2.54)^3$ Ferrous Iron(Fe+2)= 1.0 PID= 0.0 PID= 0.0 PID= 0.0 PID= 0.0											
. ,					volumes have been	n purged (unless pur	ge water ren	nains visually	turbid			
	Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be											
stablizing), N	stablizing), No. of Well Screen Volumes Purged = Vp/Vs. WATER QUALITY: Clear, Color 1949											
							•		_ ,			

SAMPLE ID: GW-7462-020608-MJW-011 (M5/M5D)

SAMPLETIME: 1550

MONITORING WELL RECORD FOR LOW-FLOW PURGING

			MON	IORIING	WELL RECORD	O FOR LOW-FLOV	VICKOIIV	<u> </u>			
Project Data						.					
	Project Name: Ref. No.:	Oxy Delawai 7462				Date: Personnel:					
	Kei. No	7402	<u> </u>		•	r ersoruter.					
Monitoring 1	Well Data:					-					
	*Well No.:	Α-	69		•	Screen Length (ft):					
Meas	- surement Point:					Pump Intake (ft)(1):					
	Well Depth (ft):				. Vel	l Diameter, D (in):					
*Measured V	Vell Depth (ft):	20	0.00		Well Screen V	olume, V _s (mL) ⁽²⁾ :					
Donath a	- - (Cadimant (6)					epth to Water (ft):		28			-
Deptin	of Sediment (ft):			*Donth !	•	eptn to water (tt): imp installed (ft):		10			
			Drawdown	Берш	o water after pt	imp installed (it):					
	Pumping	Depth to	from Initial							Volume	No. of Well
	Rate	Water	Water Level (3)		Temperature	Conductivity	ORP	DO	Turbidity		Screen Volumes
Time	(mL/min)	(ft)	(ft)	pH	° C	(mS/cm)	(mV)	(mg/L)	(NTU)	(mL)	Purged (4)
1500	420		1	6.62	12.2	1.86	-96	3.35	>/000		
1505		4.29		6,61	11.8	2.05	-111	0.76	>1000		
1510				6.61	11.9	2.15	-115	0.61	>1000		
1515	420	4.30		6.62	11.9	2.19	-119	0.54	>1000		
1525		7.30	 	6.62	12.0	2.20	-121	0.52	957		
170-7				19. 0 €	12.0	Q. 2	100	1000	1 (1		
								 			
			 					<u> </u>	 -		
otes:							VOL PURG	GED= 2	.5 gal		
) The pump int	ake will be placed	at the well sc	reen mid-point or a	at a minimu	m of 2 ft above an	v sediment accumula		ll bottom.	· - yay		

(2) The well screen volume will be based on a 5-foot screen length, $V_s=p^*(D/2)^2*(5*12)*(2.54)^3$

Ferrous Iron(Fe+2)= O. & mg/L PID= 7.8 ppm

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be WATER QUALITY: TOF bid stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

H2M LABS, INC. 24543 EXTERNAL CHAIN OF CUSTODY

575 Broad Hollow Rd. Melville, NY 11747-5076

Tel: (631		CLIE	NT:				$\overline{}$	$\overline{}$					H2M SDG	NO:					
PROJECT NAME/NUMBER Oxy - DE City PMP 7462 - A0531 SAMPLERS: (signature)/Client CRA DELIVERABLES: TURNAROUND TIME:							Sample Container Description	VOC 'S	T- Ha	Diss - Ha (Fillered)	T-netals	Diss netals/12/1/10					NOTES:		Project Contact: Paul McMahon Phone Number: 716-297-6150 PIS/Quote #
							No. of		Al	NALY	SIS F	REQL	JEST	ED					
TURNAR	OUND	TIME:					Containers	OR	RGAN	IC					INO	RG.			
DATE	TIME	MATRIX		FIEL	LD I.D.			V	X	2 4					Metal	S	LAB I.I	D. NO.	REMARKS:
2-6-01	040	FW	64-741	62-0200	.08-M	1171-006	4	\geq	\geq	\boxtimes									
26051	125	GW	GW-740	2-0206	08-M	M-007	4	\bowtie	\geq	\boxtimes									
2-600/	215		GW-740		4	\geq	\trianglerighteq	\bowtie	Ш										
26-0A1			GW-740	2-020	60B-L	tTW-009	4	X	\succeq	triangle		Ш				Ш	_		
26-04/						010-W	4	X		\bowtie						Ш			,
2-6-06/1	<u>550</u>		GW-746	2-0206	,08-M	072-011	12	X	҈	\succeq	M	\boxtimes		Ш					MS/MS)
2608 -		M	trip	- 6lan	K		12	\bowtie	L		Ш	Ш		\square		Ш			trip black
\vdash							`	$ldsymbol{oxed}$	$oxed{oldsymbol{oxed}}$			\square				igsqcup			
		<u> </u>			<u></u>		 		lacksquare	igsqcup	Щ	Ш		Щ		Ш			
Relinquished	I by: (Sk	nature)	<u></u>	Date		Received by: (Sign	nature)		<u> </u>		Da	ate	Tin	me			LABOR	 ATORY USE OI	NLY
Relinquished by: (Signature) Date Time Received by: (Signature) Date Time Received by: (Signature)										ate ate	Tin	me me	San CO	nple L	ncies Between Labels and cord? Y or N	Samples were: 1. Shipped or I- 2. Ambient or chille	Hand Delivered Airbitt# ed, Temp ed condition: Y or N		
Relinquished	Relinquished by: (Signature) Date Time Received by: (Sign				nature)				De	ate	Tir	me				Present on outer Unbroken on out	r package: Y or N iter package: Y or N isent & complete upon sample receipt:		

SAMPLE ID: 6W-7462-00008-012/013 DUP SAMPLE TIME: 1040/1045

			MONI	TORING	WELL RECORD	D FOR LOW-FLO	W PURGIN	<u>IG</u>			
Project Date	a:							- 0~	,		
	Project Name:		e City			Date:	<u> 07-0</u>	7-()8			
	Ref. No.:	7462				Personnel:	A.M.	MATCH			
Monitoring	Well Data:		\								
	*Well No.:	A-	70		9	Screen Length (ft):					
Meas	surement Point:					ump Intake (ft)(1):					
	Well Depth (ft):				Well	l Diameter, D (in):					
*Measured V	Vell Depth (ft):	13,7	/		Well Screen V	olume, $V_s (mL)^{(2)}$:					
	of Sediment (ft):	•			*Initial De	epth to Water (ft):	35	Í			
_				*Depth to	Water after pu	ımp installed (ft):	3.3	2			
			Drawdown							** 1	37 6747-17
	Pumping Rate	Depth to Water	from Initial Water Level (3)		Temperature	Conductivity	ORP	DO	Turbidity	Volume Purged, V n	No. of Well Screen Volumes
Time	(mL/min)	(ft)	(ft)	рН	°C	(mS/cm)	(mV)	(mg/L)	(NTU)	(mL)	Purged (4)
1000	450	3<3		7.90	9.47	1.90	-42	Lav	7/002		
1005	425	3,55		9.00	9,33	190	-103	0 72	21000		
1919	425	<u>\$</u> ,56		9,91	9.50	1.91	-/5	0.51	21000		
1000	450	3.5/		10 ay	19 33	1.92	182	0.52	30 C		
1025	450	3.56		10 37	10.55	1.92	-183	0.51	242.0		
1030	·/SO_	3,58		14, 43	1005	1.93	-18 Co_	0.50	1.38.0		1
								<u> </u>			
								<u> </u>			
-								+			
lotes:							VOL PUR	GED= 3	.5gm		
1) The pump in	take will be placed	l at the well scr	een mid-point or	at a minimu	ım of 2 ft above ar	ny sediment accumu	lated at the w	ell bottom.			
•	en volume will be				² *(5*12)*(2.54) ³		Ferrous Iro	on(Fe+2)={	3.30g/L	PID= O	Oppm
	vn from the initial				ualum as bassa bas						1 1
						n purged (unless pu the stablization crite	ria and appea	r to be		,	
	o. of Well Screen		_	, 0		WATER QUALI	ry: (/4	29,	cdar	1055	
								V .			

SAMPLE ID: 5W-7462-		SAMPLE TIME:	55										
<u>M</u>	ONITORING WELL RECORD FOR	LOW-FLOW PURGIN	<u>G</u>										
Project Data: Project Name: Oxy Delaware City Ref. No.: 7462		Date: 02 -0 Personnel: A, F()	7-08										
*Well No.: *Well No.: Measurement Point: Constructed Well Depth (ft): *Measured Well Depth (ft): Depth of Sediment (ft): Depth of Sediment (ft): *Depth to Water after pump installed (ft): *Depth to Water (ft): *Depth to Water after pump installed (ft):													
*Depth to Water after pump installed (ft): _5, 15													
Drawdon Pumping Depth to from Init Rate Water Water Let Time (mL/min) (ft) (ft)	vn ial el ⁽³⁾ Temperature Cond	luctivity ORP (s/cm) (mV)	DO Turbidity (mg/L) (NTU)	Volume No. of Well Purged, Vp Screen Volumes (mL) Purged (4)									
1132 450 5.18	16.28 16.63 2. 10.28 16.60 2.	35 -177 3 -177 33 -158	2.67 VS7.0 0.50 274.0 0.42 211.0										
1137 1142 5×45 1147	9.60 19.41 3	SI -131	0 681173.0										
Notes:	(0)	VOL PURO	,	1									
 The pump intake will be placed at the well screen mid-poi The well screen volume will be based on a 5-foot screen le The drawdown from the initial water level should not exc 	$ngth, V_s = p^*(D/2)^{2*}(5*12)^*(2.54)^3$	ent accumulated at the w Ferrous Iro	en bottom. n(Fe+2)= 0,5 mg/L	PID= 0.0 fpm									

WATER QUALITY: Clear, light brown color

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be

Changed Doitheries in 1-101, ba

stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

SAMPLE ID: GW- 7462-0708-015

SAMPLE TIME: 13 0.5

Project Data	r: Project Name: Ref. No.:	Oxy Delawar 7462				Date: Personnel:	02-0 A.F.	7-U8				
	*Well No.: urement Point: Well Depth (ft):	A-7	5		Depth to P	Screen Length (ft): 'ump Intake (ft) ⁽¹⁾ : Diameter, D (in):						
*Measured W	Vell Depth (ft):	17.	33		Well Screen V	olume, V _s (mL) ⁽²⁾ :						
Depth o	of Sediment (ft):					epth to Water (ft):						
	·			*Depth to	o Water after pu	mp installed (ft):	3,8	7				
Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level ⁽³⁾ (ft)	pН	Temperature ° C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V _p (mL)	No. of Well Screen Volumes Purged ⁽⁴⁾	
1340	300	C.50		8.87 8.31	10.04	0.11	-109	3.61	311.C			
1250	265	8.67	 	8.81	10.25	6.11	-100	0.72	(128)		 	
1309				₹. \$ 3	10.09	G.13	-100	0.70	387. O			
-								 	 		 	
			·									
ļ							 -	 	 		 	
			<u> </u>		<u> </u>		<u> </u>	 	*		 	
Notes:							VOL PUR	GED=	1.0ga	1	•	
	ake will be placed en volume will be		•			ny sediment accumu	lated at the w	ец bottom.	3.7.2/L			
(3) The drawdow	vn from the initial	water level sh	ould not exceed 0	.3 ft.								
						n purged (unless pur	-	-	turbid			
	and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = Vp/Vs. WATER QUALITY: Turk of Light brown											

SAMPLE ID: 6W-7462-020708-016

SAMPLE TIME: 1420

			1110111	OILITO .	THE RECOILE	TOREDON TEO		<u> </u>			
Project Dat	a:										
•	Project Name:	Oxy Delawar	re City			Date:	00-0	705			
	Ref. No.:	7462				Personnel:	A. His	40			
							<u>''</u>				
Monitoring	Well Data:	Λ .									
	*Well No.:	/ -) -()	5		S	icreen Length (ft):					
Mea	surement Point:				Depth to P	ump Ir take (ft) ⁽¹⁾ :					
Constructed	Well Depth (ft):				Well	Diameter, D (in):					
	Well Depth (ft):		.08		•	olume, V _s (tnL) ⁽²⁾ :					
	•	<u> </u>	.00		•						
Depth (of Sediment (ft):				"Initial De	pth to Wate: (ft):	<u>(2,2</u>	8			
				*Depth to	o Water after pu	mp installe.₹ (ft):	(1.2	9			
			Drawdown				J	,			
	Pumping	Depth to	from Initial			G I	077	20	m • • • • • • • • • • • • • • • • • • •	Volume	No. of Well
T:	Rate	Water	Water Level (3)		Temperature ° C	Conductivity	ORP	DO	-	_	Screen Volumes
Time	(mL/min)	(ft)	(ft)	pH		(mS/cm)	(mV)	(mg/L)	(NTU)	(mL)	Purged (4)
1345	500			8.23	12.19	409	-145	3,9/	964.0		
1356	1356 400 0.37 000 9.5				12.28	1112	-149	0.00	733.0		
1355	425			4.61	1238	112	-158	0,49	748.0		
19500		6.32	(32	7.7/	12 45	1,12	-16 Y	17.48	220		
1405	475	4.51	7	C 12	15.34	116/	= 1/2	10,47	147.0	 -	
1410	145	+	 	9.11	1337	112	768.	0.46	112.0		
, 1		 		1.80	-2.3/	1,15	- '\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	0,40	11 2,0		
	 						<u> </u>	 	ļ — — —		
								†			
									÷		
	 		ļ					<u> </u>		ļ	
		<u>i </u>			<u> </u>		<u> </u>		<u></u>	<u> </u>	L
Notes:							VOL 1 JR	GED= 3	}.5gev	/ (
						ny sediment accumu	lated at ∶ie w	zeu porrom.			•
(2) The well scre	een volume will b	e based on a 5-	foot screen length,	$V_s=p^*(D/2)$) ² *(5*12)*(2.54) ³		Ferror 3 Iro	on(Fe+2)= _	3.9~5/L	PID= U	dpp
			ould not exceed 0								- / /
						n purged (unless pu					
				re varying s	lightly outside of t	he stablization criter WATER QUALIT	ria and ppea	r to be	Lish	£ 1	
staduzing), N	No. of Well Screen	volumes Purg	ea= vp/ vs.			WATER QUALIT	11: TU,	~ 610	, Bran	N 6016	-1
	_										

SAMPLE ID: GW-7462-00008-017

SAMPLETIME: 1535

Project Data: Project Name: Oxy Delaware City Ref. No.: 7462	Date: 07-08 Personnel: 4, Flva+0	
Monitoring Well Data: *Well No.: A - 7 7 Measurement Point: Constructed Well Depth (ft): *Measured Well Depth (ft): S 3 1 7 9 Depth of Sediment (ft):	Screen Length (ft): Depth to Pump Intake (ft)(1): Well Diameter, D (in): Well Screen Volume, V _s (mL)(2): *Initial Depth to Water (ft): Depth to Water after pump installed (ft):	
Drawdown Pumping Depth to from Initial Rate Water Water Level (3) Time (mL/min) (ft) (ft)	Temperature Conductivity ORP DO Turbidity pH °C (mS/cm) (mV) (mg/L) (NTU)	Volume No. of Well Purged, Vp Screen Volumes (mL) Purged (4)
186 500 1501 6.57 1506 425 1511	8, 18 12, 99 1, 28 -88 5, 49 401, 0 9,36 12, 59 1,36 -149 5,54 239,0 9,62 12,60 1,43 -163 0,43 1120 9,71 12,63 1,50 -168 0,40 104,0 9,76 12,61 1,60 -171 0,41 85	
1531 425 1526	9.80 (3.6) 1.61 -174 6.39 101.0 9.80 (3.6) 1.68 -173 6.38 121.0	
 (2) The well screen volume will be based on a 5-foot screen length, (3) The drawdown from the initial water level should not exceed 0. (4) Purging will continue until stabilization is achieved or until 20 v 	ft. ell screen volumes have been purged (unless purge water remains visually turbid varying slightly outside of the stablization criteria and appear to be,	PID- O, Oppo

H2M LABS, INC.

575 Rroad Hollow Rd. Melville, NY 11747-5076

24058 EXTERNAL CHAIN OF CUSTODY

Tel: (631) 694-3040 Fax: (631) 420-8436	CLIE	NT:				<u> </u>					H2M SDG	NO:
PROJECT NAME/NUMBER 0 X Y - Del - C. + y PMP 7 Y62 - A0531 SAMPLERS: (signature)/Client Chenda Hutte / CNA DELIVERABLES:	Sample Container Description	5,70/	7. H.G	Diss- Ha (f. [tered)	T-Netals Decalled metal (1, How					NOTES:		Project Contact: Paul Mahan Phone Number: 114-397-4150 PIS/Quote #
THEN APOLIND TIME.	Total No. of Containers	Ŀ	AN	IALY:	SIS REC	UES	TED					, i
TURNAROUND TIME:	Cont	OR	GAN	C_				INO	RG.	,		
DATE TIME MATRIX FIELD I.D.	\	. ¥o	¥ Ø	3 5	·			Metal	S	LAB I.I	D. NO.	REMARKS:
020701040 CW CW-74C2-020708-012	4	X	X	X								
2008 1645 GW 6210-7462 -013	4	X	X	X		L						freig dup
6-0006 BBS GW GW-7467-020708-014	4	X	X	\times	<u>.</u>							
2000 1305 GW GW-7462-10008-015	5 4	X	X	X		上						
2010-01120 GIN GNI-7462 -0207 08-016	di	X	>	\times		$oxed{oxed}$	╙				_	
02-0100 1535 GW GW-7462-02008-017	4	X	ΙŹ.	\times		lacksquare	_		$ldsymbol{ldsymbol{ldsymbol{eta}}}$		·	
020700 - Cow Tun Blank	12	X,	X	<u> </u>		↓_	╙		$oxed{oldsymbol{oldsymbol{oldsymbol{eta}}}}$		_	in the contract
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Relinquished by: (Signature) Date Time Received by: (Signature)	pnature)				Date	T	Îme			14000	TORY HEE OF	
Crarda Hista 27-08 1700								Disc	crepa	Incles Between	Samples were:	
Relinquished by: (Signature) Date Time Received by: (Signature)	pnature)				Date	T	ime	Sar CO	nple i C Re	Labels and cord? Y or N	Ambient or chille Received in good	od condition: Y or N
Relinquished by: (Signature) Date Time Received by: (Signature)	gnature)				Date	T	lme	Exp	:nisk		4. Properly present COC Tape was:	ved: Y Of N
Relinquished by: (Signature) Date Time Received by: (Signature)	gnature)		3		Date	T	ime	— — —			Present on outs Unbroken on outs	or package: Y or N Inter package: Y or N Issent & complete upon sample receipt:

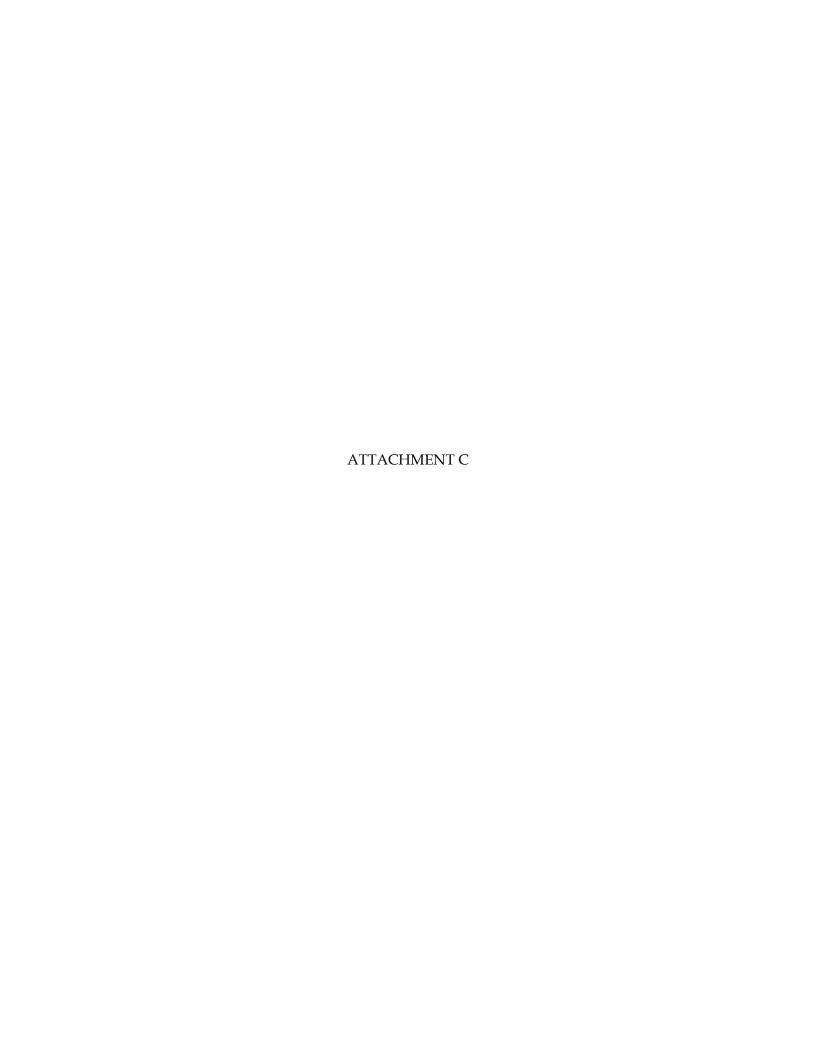
PMP

- treatment system samples -

		Project l	Project Name: Ref. No.:		e City			Date: Personnel:	2-4 M, U	8-08 Lyach	۷		
		N	*Well No.: Measurement Point: ted Well Depth (ft):		eff.		Depth to P	Screen Length (ft): Yump Intake (ft) ⁽¹⁾ : I Diameter, D (in):					
			ed Well Depth (ft): oth of Sediment (ft):			*Depth to	*Initial De	olume, V _s (mL) ⁽²⁾ : epth to Water (ft): ump installed (ft):				· ·	
		Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level ⁽³⁾ (ft)	pН	Temperature C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V _p (mL)	No. of Well Screen Volum Purged ⁽⁴⁾
m ef	1	1029				7.26	19.6	(3.6	-60	8.91	9		
n inf	-	1039	<u> </u>			7.00	14.7	13.9	-116	9.67	4		
						<u> </u>							
		(2) The well(3) The draw(4) Purging and appear	p intake will be place screen volume will be down from the initia will continue until states to be clearing, or the continue will continue until states to be clearing, or the continue will be continued to the continued will be continued to the	e based on a 5-fo I water level sho bilization is ach unless stabilizat	oot screen length, ould not exceed 0 ieved or until 20 ion parameters a	V _s ≃p*(D/2) .3 ft. well screen v	² *(5*12)*(2.54) ³ 5 volumes have been	eystem eff arbon int n purged (unless pur	Ferrous Iro	rell bottom. on(Fe+2)=			

H2M LABS, INC. 24546 EXTERNAL CHAIN OF CUSTODY

575 B	road Ho	liow Re	i, Melviile,	, NY 1174	7-5076														
Tel:(6	31) 694	1-3040	Fax: (631)	420-843	6		CLIE	NT:						_		-		H2M SDG	NO:
	CT NAM								Т		1			Т	Π	П	NOTES:		Project Contact:
Ox	y -	DE	City 1053	PMP	٠.		ntainer			4 Hered		G. Hered							Paul Mc Mahon Phone Number:
				1			Sample Contain Description			44		(56							
	ERS: (si	-		,				N		\\ \	13	+		1					716-297-6150
6	MC	h		PRA				8	4	15 t	tow	55. Me							PIS/Quote #
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TURNA	ROUND	TIME:					Total No.	OR	RGAN	IC					INO	RG.			_
DATE	TE TIME MATRIX FIELD I.D. 1025 GW QJ-74(2-010804-MTW-0						ş	Į.	N.F					Metal	Ö	LAB I.	D. NO.	REMARKS:	
2-4-14	1025	GW	QJ-740	2-0209	304-M	121-014	4	\times	\geq	\bowtie	\bowtie	\triangleleft		_					system all
24.CB	1035	GW	GW-740	2-0209	508-M	TW-019	4	X	$\stackrel{ }{\sim}$	\bowtie	\bowtie	\leq			_				cachan int
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Relinquisi	hed by: (Sig	mature)		Date	,	Received by: (Sig	nature)				Dat	e	T	ime			LABOR	ATORY USE O	NLY
Pelinguio	ned by: (Sig			7-4-69 Date		Received by: (Sig	oot m				D-1		Ļ	·	4	•	ncies Between	Samples were: 1. Shipped or I	Hand Delivered Airbill#
, voin iquiai	iou by. (Oil	, iaure)		Date	1 11110	Noceived by. (Sig	Hawrey				Dat	le	'	ime		-	abels and cord? Y or N	2. Ambient or child	ed, Temp od condition: Y or N
Relinquished by: (Signature) Date Time Received by: (Signature)				nature)				Dat	e	T	ime	Exp	:nisk		4. Properly preser				
	·															COC Tape was:	os nackama: V as N		
Relinquis	Relinquished by: (Signature) Date Time Received by: (Signature)				nature)				Dat	te	T	ime	1 —			2. Unbroken on ou	er package: Y or N Inter package: Y or N		
											3. COC record present & complete upon sample Y or N				isent a complete upon sample receipt:				



Sample Location:					CARBON-INFLUENT			CARBON-INTERBED	CARBON-INTERBED	CARBON-INTERBED	CARBON-INTERBED	CARBON-INTERBED
Sample ID:					GW-7462-020808-019	WW 7462 010308						D WW 7462 021308 CARBON INTERBED
Sample Date:					2/8/2008	1/3/2008	1/8/2008	1/17/2008	1/22/2008	1/31/2008	2/5/2008	2/13/2008
.		Ecologica		Criteria								
Parameters	Units	Criteria		s Type								
V 1 (1 0 C 1		a	b									
Volatile Organic Compounds	/1	410	200	MCL	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane 1,1,2,2-Tetrachloroethane	ug/L		200 0.0527	RBC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Tetrachioroethane 1,1,2-Trichloroethane	ug/L	2400 87	0.0527	MCL	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-11ichloroethane 1,1-Dichloroethane	ug/L	740	5 896.5	RBC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	ug/L	25	7	MCL	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	ug/L ug/L	50	70	MCL	35	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane (DBCP)	O,		0.2	MCL	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L ug/L	180	0.2	MCL	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	ug/L ug/L	14	600	MCL	470 ^a	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	-	980	600		1 U	1 U	1 U	1 U	1 U		1 U	1 U
•	ug/L		5 5	MCL						1 U		
1,2-Dichloropropane	ug/L	525		MCL	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	ug/L	52	18.25	RBC	610 ^{ab}	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	ug/L	16	75	MCL		1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	14000	6968	RBC	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone	ug/L	99	-		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	170	6278	RBC	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	ug/L	1500	5475	RBC	5 U	14	5 U	8	5 U	5 U	5 U	5 U
Benzene	ug/L	98	5	MCL	870 ^{ab}	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Bromodichloromethane	ug/L	110	0.17	RBC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	320	8.48	RBC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane (Methyl Bromide)	ug/L	110	8.52	RBC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon disulfide	ug/L	0.92	1042	RBC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon tetrachloride	ug/L	9.8	5	MCL	10 ^{ab}	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	64	100	MCL	1400 ^{ab}	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	-	3.64	RBC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform (Trichloromethane)	ug/L	28	0.155	RBC	120	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane (Methyl Chloride)	ug/L	5500	190	RBC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	ug/L	590	70	MCL	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	ug/L	0.055	-	-	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane	ug/L	-	12410	RBC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	ug/L	110	0.126	RBC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane (CFC-12)	ug/L	110	347	RBC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	ug/L	110	700	MCL	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	ug/L	-	658	RBC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl acetate	ug/L	-	6083	RBC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl cyclohexane	ug/L	-	6278	RBC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl Tert Butyl Ether	ug/L	-	2.64	RBC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene chloride	ug/L	1500	5	MCL	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	ug/L	241	100	MCL	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	ug/L	60	5	MCL	96	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	ug/L	94	1000	MCL	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	ug/L	1160	100	MCL	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	ug/L	244	-	-	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	ug/L	47	5	MCL	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane (CFC-11)	ug/L	110	1288	RBC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trifluorotrichloroethane (Freon 113)	ug/L	-	59375	RBC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	ug/L	930	2	MCL	52°	1 U	1 U	1 U	1 U	1 U	3"	12"
Xylene (total)	ug/L	13	10000	MCL	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Sample Location:					CARBON-INFLUENT			CARBON-INTERBED	CARBON-INTERBED	CARBON-INTERBED	CARBON-INTERBED	CARBON-INTERBED
Sample ID:					GW-7462-020808-019					WW 7462 013108 CARBON INTERBED		
Sample Date:					2/8/2008	1/3/2008	1/8/2008	1/17/2008	1/22/2008	1/31/2008	2/5/2008	2/13/2008
		Ecological	Federal	Criteria								
Parameters	Units	Criteria	MCLs or RBC	Ss Type								
		a	b									
Metals					2450 7/8							
Aluminum	ug/L	87	36500	RBC	2450 K ^a	-	-	-	-	-	-	-
Aluminum (Dissolved)	ug/L	87	36500	RBC	12.2 B	-	-	-	-	-	-	-
Antimony	ug/L	30	6	MCL	8.5 J ^b	-	-	-	-	-	-	-
Antimony (Dissolved)	ug/L	30	6	MCL	2.3 U	-	-	-	-	-	-	-
Arsenic	ug/L	150	10	MCL	95.9"	-	-	-	-	-	-	-
Arsenic (Dissolved)	ug/L	150	10	MCL	1.8 U	-	-	-	-	-	-	-
Barium	ug/L	438	2000	MCL	196 J	-	-	-	-	-	-	-
Barium (Dissolved)	ug/L	438	2000	MCL	106 J	-	-	-	-	-	-	-
Beryllium	ug/L	2.4	4	MCL	2.4 B	-	-	-	-	-	-	-
Beryllium (Dissolved)	ug/L	2.4	4	MCL	0.18 U 12.2 ^{ab}	-	-	-	-	-	-	-
Cadmium	ug/L	0.25	5	MCL	1.1 B ^a	-	-	-	-	-	=	-
Cadmium (Dissolved)	ug/L	0.25	5	MCL		-	-	-	-	-	-	-
Calcium	ug/L	-	-	-	28200	-	-	-	-	-	-	-
Calcium (Dissolved)	ug/L	-	100	MCL	32400 542 ^{ab}	-	-	-	-	-	-	-
Chromium Total	ug/L	11				-	-	-	-	-	=	-
Chromium Total (Dissolved)	ug/L	11	100	MCL	1.7 B 84.6 ^a	-	-	-	-	-	-	-
Cobalt	ug/L	23	730	RBC	59.1ª	-	-	-	-	-	-	-
Cobalt (Dissolved)	ug/L	23	730	RBC		-	-	-	-	-	-	-
Copper	ug/L	9	1460	RBC	6.3 B	-	-	-	-	-	-	-
Copper (Dissolved) Iron	ug/L	9 320	1460 10950	RBC RBC	1.2 J 443000 ^{ab}	-	-	-	-	-	-	-
	ug/L	320	10950	RBC	907 ^d	-	-	-	-	-	-	-
Iron (Dissolved)	ug/L					-	-	-	-	-	=	-
Lead Lead (Dissolved)	ug/L	2.5 2.5	-	-	1.4 U 1.4 U	-	-	-	-	-	-	-
Magnesium	ug/L ug/L	-	-	-	17100	-	-	-	-	-	-	-
Magnesium (Dissolved)	ug/L ug/L	-	-	-	20900	-	-	-	-	-	-	-
Manganese	ug/L ug/L	1300	730	RBC	6500 ^{ao}				_			- -
Manganese (Dissolved)	ug/L ug/L	1300	730	RBC	6950 ^{ab}	_			- -	_		- -
Mercury	ug/L ug/L	0.77	2	MCL	178 ^{ao}	-			- -	_		- -
Mercury (Dissolved)	ug/L ug/L	0.77	2	MCL	4.1 ^{av}	_			- -	_		- -
Nickel	ug/L ug/L	52	730	RBC	10.3 J	- -	- -	- -	-	- -	-	-
Nickel (Dissolved)	ug/L	52	730	RBC	6.0 B				_			- -
Potassium	ug/L ug/L	-	-	- KDC	1440000	-	- -	- -	-	- -	- -	-
Potassium (Dissolved)	ug/L	-	_	-	1440000	_	_	_	_	_	_	_
Selenium	ug/L	4.6	50	MCL	21.2ª	_	_	_	_	_	_	_
Selenium (Dissolved)	ug/L	4.6	50	MCL	5.3ª	_	_	_	_	_	_	_
Silver	ug/L	0.36	183	RBC	2.1 B ^a	_	_	_	_	_	_	_
Silver (Dissolved)	ug/L	0.36	183	RBC	2.2 B ^a	_	_	_	_	_	_	_
Sodium	ug/L ug/L	-	-	-	1160000	_	_	_	_	_	_	_
Sodium (Dissolved)	ug/L ug/L	-	-	-	1160000	-	-	-	-	-	-	_
Thallium	ug/L	6	2	MCL	8.7 J ^{av}	_	-	-	-	_	-	-
Thallium (Dissolved)	ug/L	6	2	MCL	2.3 U	_	_	_	_	_	_	_
Vanadium	ug/L ug/L	12	37	RBC	368 ^{ab}	_	_	_	_	_	_	_
Vanadium (Dissolved)	ug/L ug/L	12	37	RBC	0.89 U	- -	- -	- -	-	- -	-	-
Zinc	ug/L ug/L	118.1	10950	RBC	13.8 B	-	- -	- -	-	- -	- -	-
Zinc (Dissolved)	ug/L ug/L	118.1	10950	RBC	11.9 B	-	_	_	_	_	-	-
- (/	-6/ -				~ =							

Notes:
B - Not detected substantially above the level reported in laboratory or field blanks.
J - Estimated concentration.
K - High bias.

U - Not present at or above the associated value.
- Not analyzed.

Sample Location:					CARBON-INTERBED	CARBON-INTERBED	CARBON-INTERBED	COLLECTION-TRENCH	SYSTEM-EFFLUENT	SYSTEM-EFFLUENT	SYSTEM-EFFLUENT
Sample ID:								WW 7462 010808 COLLECTION TRENCH			
Sample Date:		, . ,	F 1 1	<i></i>	2/21/2008	2/28/2008	3/6/2008	1/8/2008	1/8/2008	1/17/2008	1/22/2008
Parameters	Units	cological Criteria a	Federal MCLs or RBCs b	Criteria S Type							
Volatile Organic Compounds		u	b								
1,1,1-Trichloroethane	ug/L	410	200	MCL	1 U	1 U	1 U	1 U	1 U	_	<u>-</u>
1,1,2,2-Tetrachloroethane	ug/L	2400	0.0527	RBC	1 U	1 U	1 U	1 U	1 U	_	<u>-</u>
1,1,2-Trichloroethane	ug/L	87	5	MCL	1 U	1 U	1 U	1 U	1 U	_	_
1,1-Dichloroethane	ug/L	740	896.5	RBC	1 U	1 U	1 U	1 U	1 U	_	<u>-</u>
1,1-Dichloroethene	ug/L	25	7	MCL	1 U	1 U	1 U	1 U	1 U	_	<u>-</u>
1,2,4-Trichlorobenzene	ug/L	50	70	MCL	1 U	1 U	2	1 U	1 U	_	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	-	0.2	MCL	1 U	1 U	1 U	1 U	1 U	-	-
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	180	0.05	MCL	1 U	1 U	1 U	1 U	1 U	-	-
1,2-Dichlorobenzene	ug/L	14	600	MCL	1.2	1.7	35 ^a	1 U	1 U	-	-
1,2-Dichloroethane	ug/L	980	5	MCL	1 U	1 U	1 U	1 U	1 U	-	-
1,2-Dichloropropane	ug/L	525	5	MCL	1 U	1 U	1 U	1 U	1 U	-	-
1,3-Dichlorobenzene	ug/L	52	18.25	RBC	1 U	1 U	4	1 U	1 U	-	-
1,4-Dichlorobenzene	ug/L	16	75	MCL	1.5	1.6	43 ^a	1 U	1 U	-	-
2-Butanone (Methyl Ethyl Ketone)		14000	6968	RBC	5 U	5 U	5 U	5 U	5 U	-	-
2-Hexanone	ug/L	99	-	-	5 U	5 U	5 U	5 U	5 U	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	170	6278	RBC	5 U	5 U	5 U	5 U	5 U	-	-
Acetone	ug/L	1500	5475	RBC	5 U	5 U	5 U	5 U	5 U	-	-
Benzene	ug/L	98	5	MCL	2.6	2.0	54°	1	0.7 U	-	-
Bromodichloromethane	ug/L	110	0.17	RBC	1 U	1 U	1 U	1 U	1 U	-	-
Bromoform	ug/L	320	8.48	RBC	1 U	1 U	1 U	1 U	1 U	-	-
Bromomethane (Methyl Bromide)	ug/L	110	8.52	RBC	1 U	1 U	1 U	1 U	1 U	-	-
Carbon disulfide	ug/L	0.92	1042	RBC	1 U	1 U	1 U	1 U	1 U	-	-
Carbon tetrachloride	ug/L	9.8	5	MCL	1 U	1 U	1	10 ^{ab}	1 U	-	-
Chlorobenzene	ug/L	64	100	MCL	3.0	1.9	70 ^a	1	1 U	-	-
Chloroethane	ug/L	-	3.64	RBC	1 U	1 U	1 U	1 U	1 U	-	-
Chloroform (Trichloromethane)	ug/L	28	0.155	RBC	1 U	1 U	38	4°	1 U	-	-
Chloromethane (Methyl Chloride)	ug/L	5500	190	RBC	1 U	1 U	1 U	1 U	1 U	-	-
cis-1,2-Dichloroethene	ug/L	590	70	MCL	1 U	1 U	1 U	3	1 U	-	-
cis-1,3-Dichloropropene	ug/L	0.055	-	-	1 U	1 U	1 U	1 U	1 U	-	-
Cyclohexane	ug/L	-	12410	RBC	1 U	1 U	1 U	1 U	1 U	-	-
Dibromochloromethane	ug/L	110	0.126	RBC	1 U	1 U	1 U	1 U	1 U	-	-
Dichlorodifluoromethane (CFC-12)	ug/L	110	347	RBC	1 U	1 U	1 U	1 U	1 U	-	-
Ethylbenzene	ug/L	110	700	MCL	1 U	1 U	1 U	1 U	1 U	-	-
Isopropylbenzene	ug/L	-	658	RBC	1 U	1 U	1 U	1 U	1 U	-	-
Methyl acetate	ug/L	-	6083	RBC	1 U	1 U	1 U	1 U	1 U	-	-
Methyl cyclohexane	ug/L	-	6278	RBC	1 U	1 U	1 U	1 U	1 U	-	-
Methyl Tert Butyl Ether	ug/L	-	2.64	RBC	1 U	1 U	1 U	1 U	1 U	-	-
Methylene chloride	ug/L	1500	5	MCL	1 U	1 U	1 U	1 U	1 U	-	-
Styrene	ug/L	241	100	MCL	1 U	1 U	1 U	1 U	1 U	-	-
Tetrachloroethene	ug/L	60	5	MCL	1 U	1 U	1 U	8"	1 U	-	-
Toluene	ug/L	94	1000	MCL	1 U	1 U	1 U	1 U	1 U	-	-
trans-1,2-Dichloroethene	ug/L	1160	100	MCL	1 U	1 U	1 U	1 U	1 U	-	-
trans-1,3-Dichloropropene	ug/L	244	-	-	1 U	1 U	1 U	1 U	1 U	-	-
Trichloroethene	ug/L	47	5	MCL	1 U	1 U	1 U	5	1 U	-	-
Trichlorofluoromethane (CFC-11)	ug/L	110	1288	RBC	1 U	1 U	1 U	1 U	1 U	-	-
Trifluorotrichloroethane (Freon 113)	ug/L	-	59375	RBC	1 U	1 U	1 U	1 U	1 U	-	-
Vinyl chloride	ug/L	930	2	MCL	6.38	7.38	25°	1 U	1 U	-	-
Xylene (total)	ug/L	13	10000	MCL	1 U	1 U	1 U	1 U	1 U	-	-

Page	Sample Location: Sample ID:					CARBON-INTERBED	CARBON-INTERBED	CARBON-INTERBED	COLLECTION-TRENCH	SYSTEM-EFFLUENT	SYSTEM-EFFLUENT	SYSTEM-EFFLUENT
Part												
Profest	Sumple Dute.	F	cological	Federal	Criteria		2/20/2000	3/0/2003	1/0/2000	1/0/2000	1/17/2000	1/24/2000
Maintain	Parameters											
Manual	1 Williams	C. T. L.			1970							
Almaner (1971	Metals			-								
Mainten Marker		ug/L	87	36500	RBC	-	-	-	-	-	-	-
Mariane Mari	Aluminum (Dissolved)		87	36500	RBC	-	-	-	-	-	-	-
American Marie M	,			6		-	-	-	-	-	-	-
Asenic As	*			6		-	-	-	-	-	-	-
Kansen (Books) 45 30 ADA ACA				10		-	-	-	-	-	-	-
Parison						-	_	-	-	-	-	-
Part						-	-	-	-	-	-	-
Persistant (Proposed)	Barium (Dissolved)		438	2000	MCL	-	-	-	-	-	-	-
Calminan	Beryllium		2.4	4	MCL	=	-	-	-	-	-	-
Column	Beryllium (Dissolved)	ug/L	2.4	4	MCL	-	-	-	-	-	-	-
Calcium (Insolve)	Cadmium		0.25	5	MCL	-	-	-	-	-	-	-
Calcium (Tooloofs)	Cadmium (Dissolved)	ug/L	0.25	5	MCL	-	-	-	-	-	-	-
Calcing Calc	Calcium		-	-	-	-	-	-	-	-	-	-
Chairmain full Dissolved 19,1 19,1 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 10 10, 1	Calcium (Dissolved)		-	-	-	-	-	-	-	-	-	-
Checulan Total (Dissolved)	Chromium Total	ug/L	11	100	MCL	-	-	-	-	-	-	-
Column	Chromium Total (Dissolved)		11	100	MCL	-	-	-	-	-	-	-
Copper Suph	Cobalt	ug/L	23	730	RBC	-	-	-	-	-	-	-
September Sept	Cobalt (Dissolved)	ug/L	23	730	RBC	-	-	-	-	-	-	-
From 1967 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970	Copper	ug/L	9	1460	RBC	=	-	-	-	-	4.0	2.6
From 1967 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970 1970	Copper (Dissolved)	ug/L	9	1460	RBC	-	-	-	-	-	-	-
Lead		ug/L	320	10950	RBC	-	-	-	-	-	-	-
Lead (Dissolved)	Iron (Dissolved)	ug/L	320	10950	RBC	-	-	-	-	-	-	-
Lead (Dissolved)	Lead	ug/L	2.5	-	-	-	-	-	-	-	-	-
Manganese (Dissolved) ug/L 130 780 RIC - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - <td< td=""><td>Lead (Dissolved)</td><td></td><td>2.5</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td></td></td<>	Lead (Dissolved)		2.5	-	-	-	-	-	-	-	-	
Manganese (Dissolved) ug/L 1300 730 RBC - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - <t< td=""><td>Magnesium</td><td>ug/L</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>25400</td></t<>	Magnesium	ug/L	-	-	-	-	-	-	-	-	-	25400
Manganese Miscole Mi					-	-	-	-	-	-	-	-
Mercury Merc		ug/L				-	-	-	-	-	-	-
Mercury (Dissolved)		ug/L				-	-	-	-	-	-	-
Nickel (Dissolved)	Mercury	ug/L	0.77	2	MCL	-	-	-	-	0.31	0.46	-
Nickel (Dissolved) Wg/L 52 730 RBC - - - - - - - - -	Mercury (Dissolved)	ug/L	0.77		MCL	-	-	-	-	-	-	-
Potassium Ug/L - - - - - - - - -	Nickel	ug/L	52			-	-	-	-	-	-	-
Potasium (Dissolved)			52	730	RBC	-	-	-	-	-	-	
Selenium ug/L 4.6 50 MCL - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -		ug/L	-	-	-	-	-	-	-	-	1220000	1330000
Selenium (Dissolved) ug/L 4.6 50 MCL - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -					-	-	-	-	-	-	-	-
Silver ug/L 0.36 183 RBC - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -		ug/L				-	-	-	-	-	-	-
Silver (Dissolved) ug/L 0.36 183 RBC - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -	,					-	-	-	-	-	-	-
Sodium ug/L - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -	Silver	ug/L	0.36		RBC	-	-	-	-	-	-	-
Sodium (Dissolved) ug/L - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -	Silver (Dissolved)	ug/L	0.36	183	RBC	-	-	-	-	-	-	-
Thallium ug/L 6 2 MCL - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - <			-	-	-	-	-	-	-	-	-	-
Thallium (Dissolved) ug/L 6 2 MCL - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -<		ug/L			-	-	-	-	-	-	-	-
Vanadium ug/L 12 37 RBC - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - <td></td> <td></td> <td>6</td> <td></td> <td></td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td>			6			-	-	-	-	-	-	-
Vanadium (Dissolved) ug/L 12 37 RBC - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -	,					-	-	-	-	-	-	-
Zinc ug/L 118.1 10950 RBC		ug/L				-	-	-	-	-	-	-
	,	ug/L				-	-	-	-	-	-	-
Zinc (Dissolved) ug/L 118.1 10950 RBC		ug/L				-	-	=	-	-	-	-
	Zinc (Dissolved)	ug/L	118.1	10950	RBC	-	-	=	-	-	-	-

Notes:
B - Not detected substantially above the level reported in laboratory or field blanks.
J - Estimated concentration.
K - High bias.

U - Not present at or above the associated value.
- Not analyzed.

Sample Location:					SYSTEM-EFFLUENT	SYSTEM-EFFLUENT	SYSTEM-EFFLUENT	SYSTEM-EFFLUENT	SYSTEM-EFFLUENT	SYSTEM-EFFLUENT	SYSTEM-EFFLUENT
Sample ID:						WW 7462 020508 SYSTEM EFFLUENT					
Sample Date:					1/31/2008	2/5/2008	2/8/2008	2/13/2008	2/21/2008	2/28/2008	3/6/2008
		Ecological		Criteria	1						
Parameters	Units	Criteria	MCLs or RBCs	з Туре							
		a	b								
Volatile Organic Compounds											
1,1,1-Trichloroethane	ug/L	410	200	MCL	-	1 U	1 U	_	_	_	1 U
1,1,2,2-Tetrachloroethane	ug/L	2400	0.0527	RBC	_	1 U	1 U	_	_	_	1 U
1,1,2-Trichloroethane	ug/L ug/L	87	5	MCL	_	1 U	1 U			_	1 U
1,1-Dichloroethane		740	896.5	RBC	-	1 U	1 U	-	-	-	1 U
·	ug/L				-			-	-	=	
1,1-Dichloroethene	ug/L	25	7	MCL	-	1 U	1 U	-	-	-	1 U
1,2,4-Trichlorobenzene	ug/L	50	70	MCL	-	1 U	1 U	-	-	-	1 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	-	0.2	MCL	-	1 U	1 U	-	-	-	1 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	180	0.05	MCL	-	1 U	1 U	-	-	-	1 U
1,2-Dichlorobenzene	ug/L	14	600	MCL	-	1 U	1 U	-	-	-	1 U
1,2-Dichloroethane	ug/L	980	5	MCL	-	1 U	1 U	-	-	-	1 U
1,2-Dichloropropane	ug/L	525	5	MCL	-	1 U	1 U	-	_	_	1 U
1,3-Dichlorobenzene	ug/L	52	18.25	RBC	-	1 U	1 U	_	_	_	1 U
1,4-Dichlorobenzene	ug/L	16	75	MCL	_	1 U	1 U	_			1 U
•					_	5 U	5 U	<u>-</u>	-	-	5 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	14000	6968	RBC	-			-	-	-	
2-Hexanone	ug/L	99	-	-	-	5 U	5 U	-	-	-	5 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	170	6278	RBC	-	5 U	5 U	-	-	-	5 U
Acetone	ug/L	1500	5475	RBC	-	5 U	5 U	-	-	-	5 U
Benzene	ug/L	98	5	MCL	-	0.7 U	0.7 U	-	-	-	0.7 U
Bromodichloromethane	ug/L	110	0.17	RBC	-	1 U	1 U	-	-	-	1 U
Bromoform	ug/L	320	8.48	RBC	-	1 U	1 U	-	-	-	1 U
Bromomethane (Methyl Bromide)	ug/L	110	8.52	RBC	-	1 U	1 U	<u>-</u>	_	-	1 U
Carbon disulfide	ug/L	0.92	1042	RBC	_	1 U	1 U	_	_	_	1 U
Carbon tetrachloride	ug/L	9.8	5	MCL	_	1 U	1 U	_	_	_	1 U
Chlorobenzene		64	100	MCL		1 U	1 U				1 U
	ug/L				-			-	-	=	
Chloroethane	ug/L	-	3.64	RBC	-	1 U	1 U	-	-	-	1 U
Chloroform (Trichloromethane)	ug/L	28	0.155	RBC	-	1 U	1 U	-	-	-	1 U
Chloromethane (Methyl Chloride)	ug/L	5500	190	RBC	-	1 U	1 U	-	-	-	1 U
cis-1,2-Dichloroethene	ug/L	590	70	MCL	-	1 U	1 U	-	-	-	1 U
cis-1,3-Dichloropropene	ug/L	0.055	-	-	-	1 U	1 U	-	-	-	1 U
Cyclohexane	ug/L	-	12410	RBC	-	1 U	1 U	-	-	-	1 U
Dibromochloromethane	ug/L	110	0.126	RBC	-	1 U	1 U	<u>-</u>	_	-	1 U
Dichlorodifluoromethane (CFC-12)	ug/L	110	347	RBC	_	1 U	1 U	_	_	_	1 U
Ethylbenzene	ug/L	110	700	MCL	_	1 U	1 U	_	_	_	1 U
Isopropylbenzene	ug/L ug/L	-	658	RBC	_	1 U	1 U	_	_	_	1 U
Methyl acetate		-	6083	RBC	-	1 U	1 U	-	-	-	1 U
•	ug/L			RBC	-	1 U	1 U	-	- -	-	
Methyl cyclohexane	ug/L	-	6278		-			-	-	-	1 U
Methyl Tert Butyl Ether	ug/L	-	2.64	RBC	-	1 U	1 U	-	-	-	1 U
Methylene chloride	ug/L	1500	5	MCL	-	1 U	1 U	-	-	-	1 U
Styrene	ug/L	241	100	MCL	-	1 U	1 U	-	-	-	1 U
Tetrachloroethene	ug/L	60	5	MCL	-	1 U	1 U	-	-	-	1 U
Toluene	ug/L	94	1000	MCL	-	1 U	1 U	-	-	-	1 U
trans-1,2-Dichloroethene	ug/L	1160	100	MCL	-	1 U	1 U	-	-	-	1 U
trans-1,3-Dichloropropene	ug/L	244	-	_	-	1 U	1 U	-	-	-	1 U
Trichloroethene	ug/L	47	5	MCL	_	1 U	1 U	_	_	_	1 U
Trichlorofluoromethane (CFC-11)	ug/L ug/L	110	1288	RBC	_	1 U	1 U	-	_	_	1 U
Trifluorotrichloroethane (Freon 113)		-	59375	RBC	-	1 U	1 U	-	-	-	1 U
, ,	ug/L	930		MCL		1 U	1 U	-		-	1 U
Vinyl chloride	ug/L		2		-			-	-	-	
Xylene (total)	ug/L	13	10000	MCL	-	1 U	1 U	-	-	-	1 U

Sample Location: Sample ID:					SYSTEM-EFFLUENT WW 7462 013108 SYSTEM EFFLUENT	SYSTEM-EFFLUENT WW 7462 020508 SYSTEM EFFLUENT	SYSTEM-EFFLUENT GW-7462-020808-018	SYSTEM-EFFLUENT WW 7462 021308 SYSTEM EFFLUENT	SYSTEM-EFFLUENT WW 7462 022108 SYSTEM EFFLUENT	SYSTEM-EFFLUENT WW 7462 022808 SYSTEM EFFLUENT	SYSTEM-EFFLUENT WW 7462 030608 SYSTEM EFFLUENT
Sample Date:					1/31/2008	2/5/2008	2/8/2008	2/13/2008	2/21/2008	2/28/2008	3/6/2008
		Ecologica	l Federal	Criteria							
Parameters	Units	Criteria	MCLs or RB	Cs Type							
		a	b								
Metals	/*	0.7	2.500	ppc			0.011				
Aluminum	ug/L	87	36500	RBC	-	-	8.8 U	-	-	-	-
Aluminum (Dissolved)	ug/L	87	36500	RBC	-	-	20.6 B	-	-	-	-
Antimony	ug/L	30	6	MCL	-	-	2.3 U	-	-	-	-
Antimony (Dissolved)	ug/L	30	6	MCL	-	-	2.3 U 1.8 U	-	-	-	-
Arsenic	ug/L	150	10	MCL	-	-		-	-	-	-
Arsenic (Dissolved) Barium	ug/L	150 438	10 2000	MCL MCL	-	-	1.8 U 76.6 J	-	-	-	-
Barium (Dissolved)	ug/L ug/L	438	2000	MCL	-	-	116 J	-	-	-	-
Beryllium	ug/L	2.4	4	MCL	-	-	0.18 U	-	-	-	-
Beryllium (Dissolved)	ug/L	2.4	4	MCL	-	-	0.18 U	-	-	-	-
Cadmium	ug/L	0.25	5	MCL	-		0.32 U	-	-	-	-
Cadmium (Dissolved)	ug/L	0.25	5	MCL			0.32 U	_	_		
Calcium	ug/L	-	-	-	_	_	32800	_	_		_
Calcium (Dissolved)	ug/L	-	-	-	_	- -	33500	-	_	_	_
Chromium Total	ug/L	11	100	MCL	_	<u>-</u>	1.5 J	_	_	_	_
Chromium Total (Dissolved)	ug/L	11	100	MCL	_	_	0.92 B	_	_	_	_
Cobalt	ug/L	23	730	RBC	_	<u>-</u>	61.9ª	<u>-</u>	-	-	-
Cobalt (Dissolved)	ug/L	23	730	RBC	_	<u>-</u>	63.6ª	-	_	_	_
Copper	ug/L	9	1460	RBC	1.8	2.9	1.1 B	3.1	0.87 U	0.93	2.2
Copper (Dissolved)	ug/L	9	1460	RBC	-	-	1.0 J	-	-	-	-
Iron	ug/L	320	10950	RBC	_	-	83.7 J	-	-	_	-
Iron (Dissolved)	ug/L	320	10950	RBC	_	<u>-</u>	74.6 B	-	-	-	-
Lead	ug/L	2.5	-	_	_	<u>-</u>	1.4 U	-	-	-	-
Lead (Dissolved)	ug/L	2.5	-	_	_	-	1.4 U	-	-	_	-
Magnesium	ug/L	-	-	-	-	-	22000	-	-	-	-
Magnesium (Dissolved)	ug/L	-	-	-	-	-	22200	-	-	-	-
Manganese	ug/L	1300	730	RBC	-	<u>-</u>	7270 ^{ab}	=	-	-	-
Manganese (Dissolved)	ug/L	1300	730	RBC	-	<u>-</u>	7500 ^{ab}	=	-	-	-
Mercury	ug/L	0.77	2	MCL	0.34	0.33	0.15 J	0.34	0.57	-	0.46
Mercury (Dissolved)	ug/L	0.77	2	MCL	-	<u>-</u>	0.10 U	-	-	-	-
Nickel	ug/L	52	730	RBC	-	<u>-</u>	7.7 J	-	-	-	-
Nickel (Dissolved)	ug/L	52	730	RBC	-	-	11.8 J	-	-	-	-
Potassium	ug/L	-	-	-	1150000	1310000	1440000	1310000	1520000	1370000	1320000
Potassium (Dissolved)	ug/L	-	-	-	-	-	1470000	-	-	-	-
Selenium	ug/L	4.6	50	MCL	-	-	5.4ª	-	-	-	-
Selenium (Dissolved)	ug/L	4.6	50	MCL	-	-	4.2 J	-	-	-	-
Silver	ug/L	0.36	183	RBC	-	-	1.7 B ^a	-	-	-	-
Silver (Dissolved)	ug/L	0.36	183	RBC	-	-	2.1 B ^a	-	-	-	-
Sodium	ug/L	-	-	-	-	-	1160000	-	-	-	-
Sodium (Dissolved)	ug/L	-	-	-	-	-	1180000	-	-	-	-
Thallium	ug/L	6	2	MCL	-	-	2.3 U	-	-	-	-
Thallium (Dissolved)	ug/L	6	2	MCL	-	-	2.6 J ^o	-	-	-	-
Vanadium	ug/L		37	RBC	-	-	0.89 U	-	-	-	-
Vanadium (Dissolved)	ug/L	12	37	RBC	-	-	0.89 U	-	-	-	-
Zinc	ug/L	118.1	10950	RBC	-	-	3.9 U	-	-	-	-
Zinc (Dissolved)	ug/L	118.1	10950	RBC	-	-	9.5 B	-	-	-	-

Notes:
B - Not detected substantially above the level reported in laboratory or field blanks.
J - Estimated concentration.
K - High bias.

U - Not present at or above the associated value.
- Not analyzed.

Date	Tech Initials	WL 1 Filter Feed Pump Discharge Pressure	Plant Area Filter Feed Pump Discharge	Columbia Well Water Level (< 0')*	Columbia Well Pump	Plant Area Bag Filter DP	WL 1 Bag Filter DP	Collection Trench Water Level	Collection Trench Flow Totalizer
Ì	000 CO	(psig)	Pressure (psig)		On / Off*			(<8')*	
30/6/1	ars.	70	18	-5.7	ON	3,2	8,3	5.5	66,79,20
1/3/08	************************	2	124	-5,6	ON	9,3	8,)	2.5	6688,00
17-1108		8	19	-5,5	ON	,9	O	7,5	6696185
1/5/08	CAD !		13	1 - 5,7	ON	, 6	0	7.5	6704.29
113/08	CARD 1	8	15	1-57	01	1,7	13), く	\$7-20,66
118/08	1000	5	18	1-5,7	00	3,6	""7	2,5	6729.65
1/9/08	CIMO	<u> </u>	19	-5,6	ON	2,3		>,5	6733.44
<u> 1770/08</u>	CAN	3	<u>,) 9 </u>	-5.7	ON	10,0	1,3	7.5	6744,83
1/1/108		<u> </u>	<u> </u>	1-5-2	<u>0</u> N	83	-3,3	2.5	6754,1)
<u> 1777/108</u>			70		04	30	24.1		6775.9
1/15/08	A TOTAL CONTRACTOR OF THE PARTY	70	<u> </u>	1-31	97	. 30	1.5	23	6784.67
1/16/08		11	13	1326	ON	9,6	41.6	3,5	6/41.15
473/08	2. 2.)	13	121	5.5	ON	3.2	8,1	1/5	6798,09
1/10/2		ià.	74-4	-56	00	3.8		7.5	6805,00
111110		10	73	1.2-/-	00		1777		6813.12
The street	4100	18	18	= 3 /5	20	37	10,3	2,5	<u> </u>
1/23/08		3	12	-5,6	01	8,6	6	7 2	6836,56 6844 10
1/24/07		8	15	26	0 N	6.6			
1/25/08		र्ष्ट	22	-5.6	C_{N}	9.8	7	 	6863,60
1/28/08		8	3)	-5.6	00	838	1.0	5	6879.94
80/26/1	CAN	9	22	-5.6	ÖN	8.8	1,8	15/2	6888.10
1130/08	allo	(0)	àl	-3.6	ON	8.1	13	53	6893,68
30/18/11		15	24	-5.G	ON	12. 4	3.6	711	Caco an
2/1/08	CHE	-3	79	-3,3	ON	3,6	, 2)	5 5	6920,27
2/1/04	124		3.0	-5.5	ON	1 2	. 9	7/2	6930,77
3/1/08		10	24		00	8,5	2.8	5.8	6968, 48
3/2/ç2	······································	1,2	30	1.555	90	4,0	9.2	5.3	6976,91
3/6/04		14,	27	-5.6	OW	99	1012	7.3	6988.90
3/2/28	(CB)	15	28	1+5,6	Oft.	9.5	10,3	\$ 3	2002.58
2/8/08	CARD	18	78	5.8	066	3,2	1010	7,3	2011.87

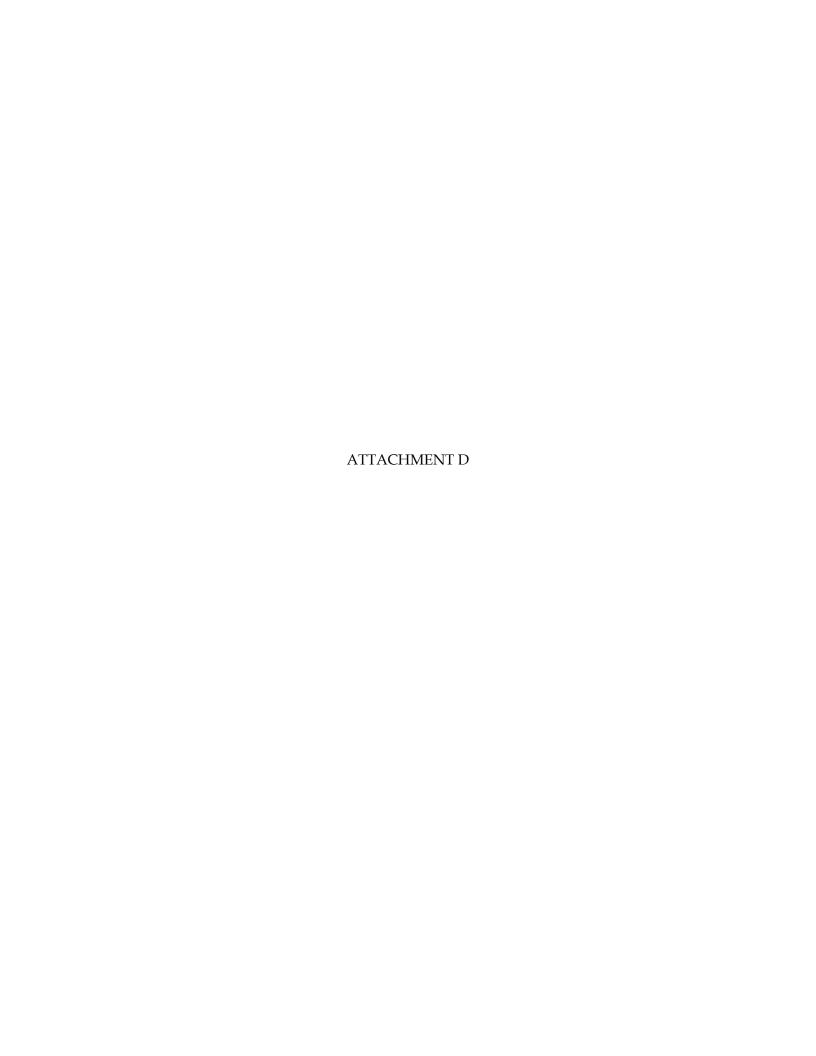
Date	Tech Initials	Notes / Comments
1/22/08	RSCHW	Changed on Waste Lake I Dock Pillers
1/3/05	12 M	Change out Plant then Bon Peters (H)
5/2/08	1200	Thanged ont Plant Area By Filter (4) & waste Lake I Sock filters (2) in ground
***************************************		H20 Shedy

	1 (1989) () () () () () () () () () (

**************************************	The second secon	
	The second of th	

Date	Tech Initials	WL 1 Filter Feed Pump Discharge Pressure (psig)	Plant Area Filter Feed Pump Discharge Pressure (psig)	Columbia Well Water Level (< 0')*	Columbia Well Pump On / Off*	Plant Area Bag Filter DP	WL 1 Bag Filter DP	Collection Trench Water Level (<8')*	Collection Trench Flow Totalizer
2/11/09	3 P4	16	19	5150	all	7.80	:20	7.3	7042.60
2/12/0	8 54	- 18	20	5,60	lokk	10,30	0:80	7, 3	7051.08
3/13/0	8 0117	<u> </u>	41	1-5,5	U/O	9,7	1,0	19,3	>062.08
3/14/08	50/20	10	3.2	-5.5	00	8,6	2,9	7.3	58, 6505
3/12/0	1 CARO 1	14	43	1-5.5	ON	8,4	2-7	2,3	2083, 27
2/18/0X	6 14	13	41	-5.5	ON	10.5	2.8	2.3	7117.57
2/19/0,	8 14		42	-5.5	ON_	16.2	43	7.3	7128.56
2/30/10		<u>LH</u>	3.5	=5.5	<u> </u>	2.6	8.5	6.5	7149 59
73/10	8 XX	-1,8	H-3	-5.5		6.3	8.7	6.8	716/.11
433	8 4 -	-4	122	-53	<u> </u>	16	6.8	20	7/78.10
1 K. J.		18	<u> </u>	-56	QV.	13.8	9,5	7:4	72-18.79
		13		5,8	3.66	18.3	9.7	2.3	7229.46
2/27/8				5.9	CHAC	13.5	<u> </u>	2.3	2338.06
3/86/2 3/86/2	3 -07		133		000		<u> </u>	7.1	7248,08
3/1/08	1 1 1 1	1,2	चेर्ड		<u> </u>	1.5		1-3-5	2264.85
3/3/08	and summing the same of the sa	<u> </u>	54	- 5-3	30	11.6	0	 	3280.92
3/4/08		13	47)	-5/5	ON	14,3	<u>. 6</u>	133	1302.7
3/2/62	1 1 1	ià	3138	27	00			12.3	7310,45
3/6/08	2.4	5	33.5	23	90	18.3	4,7	7,3	- Company
3/57/05	7150	8	พีก	-2\ \$	Off.	17,00	0	7,0	7321,91
415108	CAN	11	25	~<4	00	1,3	1.0	7.6	7:136.2
4/4/08	101	×.		-5.3	$\ddot{0}$ $\ddot{0}$	**	0,2		The state of the s
4 m Us	(PL	X	33	-10.0	(3.2	1 7	Ö. 4	6.3	7,373,3
30/8/14	COD	8	20	-10.0	ON	3.5	.6	6,3	\$ 7023
મીવીજ	au,	ς	24	9,9	00	< 9	.6	6.3	8,975
4/10/0	4 PI	8	24	-10.3	ON	7,9	3.4	8.1	9 22 4 4
Hlylo	8 RF	\$	35 35	- 10.0	0 N	0.6	6.3	6.5	a = 371
4/14/0	0412 B	8	36	-10,0	0 N	10.8	1.0	6.4	10 400 5
4/15/08	S CAD S CAD S CAD	<i></i>	33	-10,0	00	7, a 0.6 10.8 .6 5.4	1,0	6.7	8,927,0 9,228,8 9,537,1 10,400,8 10,666,3 10,947,5
416/08	11/20 8	q	33	-10.0	ON	5.4	26	C.4	10,947

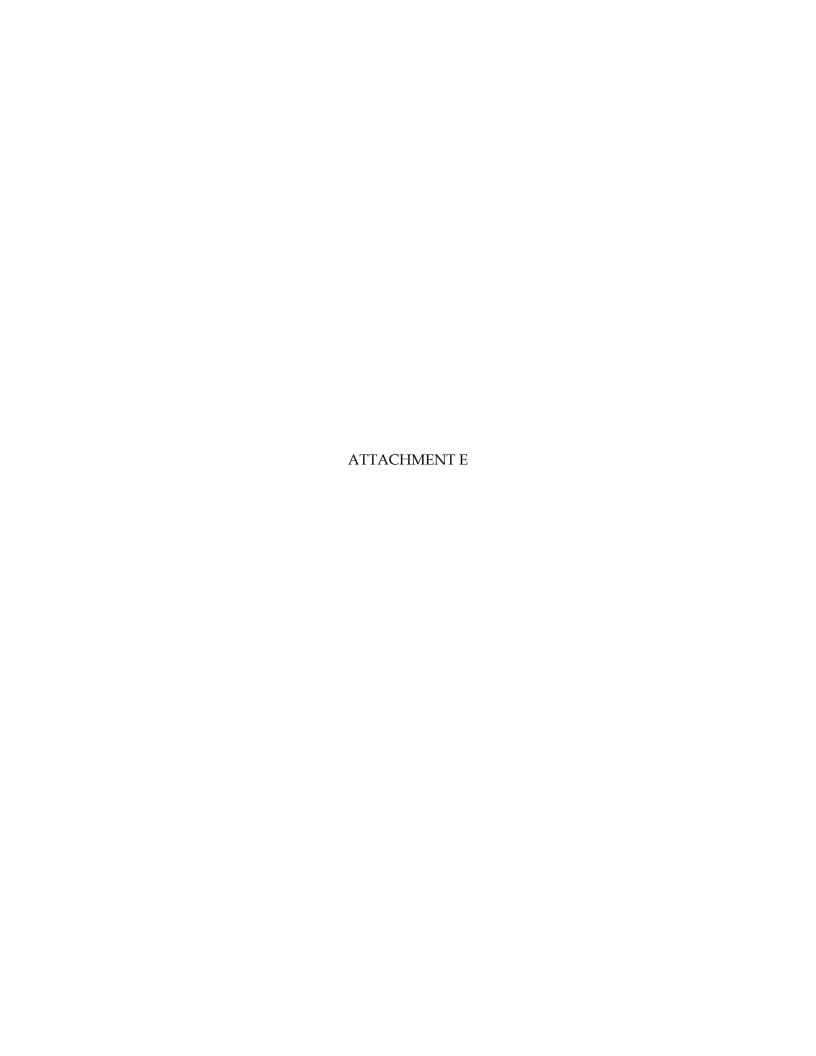
Date	Tech Initials	Notes / Comments
2)15/08	ROW	Drained approx. I got of DNAPL from Waste Lake I Tank in
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		ground 14,0 fledy, I and 25 gals of Worste Jake I Touk
	Marian Control of the	430
	116	
2000		REPLACED 4. FILTERS PLANT AIR BAGS
878612		Changed out all 6 sock fifter in leagued Has Boy . ANPS
3/5/08	COD	Shut down ground the system for work on discharge piping on
2 trits	and	west note isold sound the stay.
3768	Thurs	Changed out carbon in carbon Bod A Jold carbon was spent.
F	042	
• • • • • • • • • • • • • • • • • • • •		Les the chance in the total in somber
4-3.08	AR'S	1500 hr. started up ground His election; Columbia well suma, West,
		lake I pump & PH all tank Jump culon had I was the
		carpor ded A is secondary survey tralle tion Trevel sums come all I
A		Herry a grober getting discharge value on PH and Brand & wedte
W 2 1		lake I group to open there is a fit problem with the logic
	ap	1545 started up dround Hoo system & running O.K.
4-5-08	CNAZZ	changed out all 60 sort filters in ground Hid belove
4-4-68	(18 N	starting system with
		00 1 00 1
1-11-12		
4-41-08	C/MZ	
4-6-08		0835 This down waste lake I pump to PH Tank Rund for Maint to
		charles impoller in PH Tank purns. Cleaned PH tombo dumb sees and
4-16-6	CHO	0935 Started up PHTK, pump & Waste Lake I Tank Primo (A)
4-16-08	CAD	0945 Changed out all 4 Plat Area Bay filter press drop was 2?
040000 0440000044440000000000000000000	pages as an a space as \sqrt{A} and a second as a space \sqrt{A} and \sqrt{A} and \sqrt{A}	"E changed out lot Waste Lake I Boy Viller ; press, older was ! 6



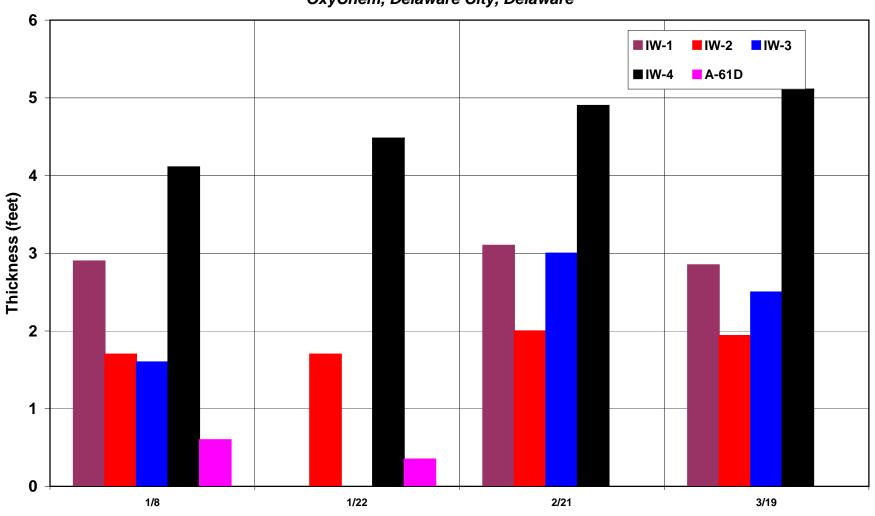
INSPECTION REPORT FORM WASTE LAKE 1 LANDFILL

Occidental Chemical Corporation
Delaware City, Delaware

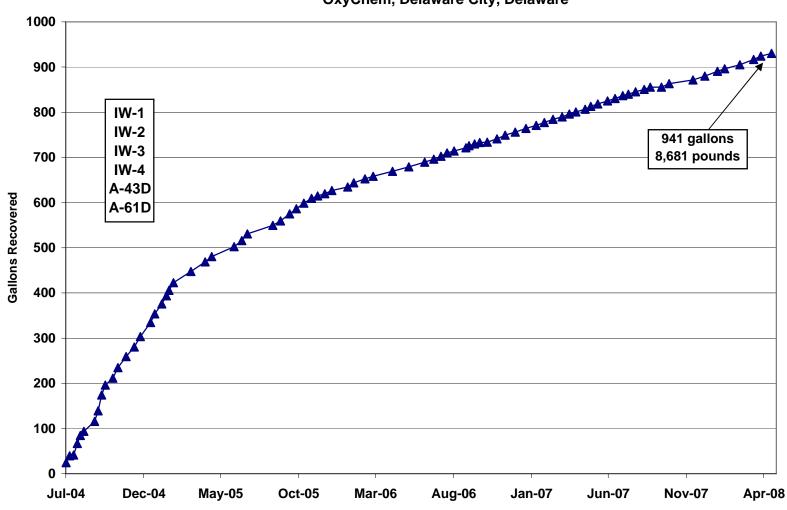
Date of Inspection 03/3/08 Time 1435 hrs	
Inspector's name/title: JACK ARMSTNONG / ENVINORMENT OF ME	in 45 ev
Security A. Condition of Security Fence around Waste Lake 1? Secure? Comments:	Yes V No
Landfill Cover Integrity A. Visual inspection of cover integrity Local Subsidence? Comments:	Yes No
B. Visual inspection for erosion Soil/vegetation condition ok? Comments:	Yes / No
3. Water Management A. Visual inspection of run-on/run-off control system Local ponding on cover? Comments:	Yes No
 Visual inspection of drainage pathways. Sediment accumulation in swales and drainage pipes? Comments; 	Yes No
4. Monitoring Wells A. Visual inspection of monitoring wells Monitoring wells in good condition? Comments:	Yes No
5. Gas Monitoring Stations A. Visual reading of the gas monitoring station pressure. (differential pressures in excess of 5 inches water column must be reported immediately to EPA) Station #1 Station #2 Station #3 Station #4	

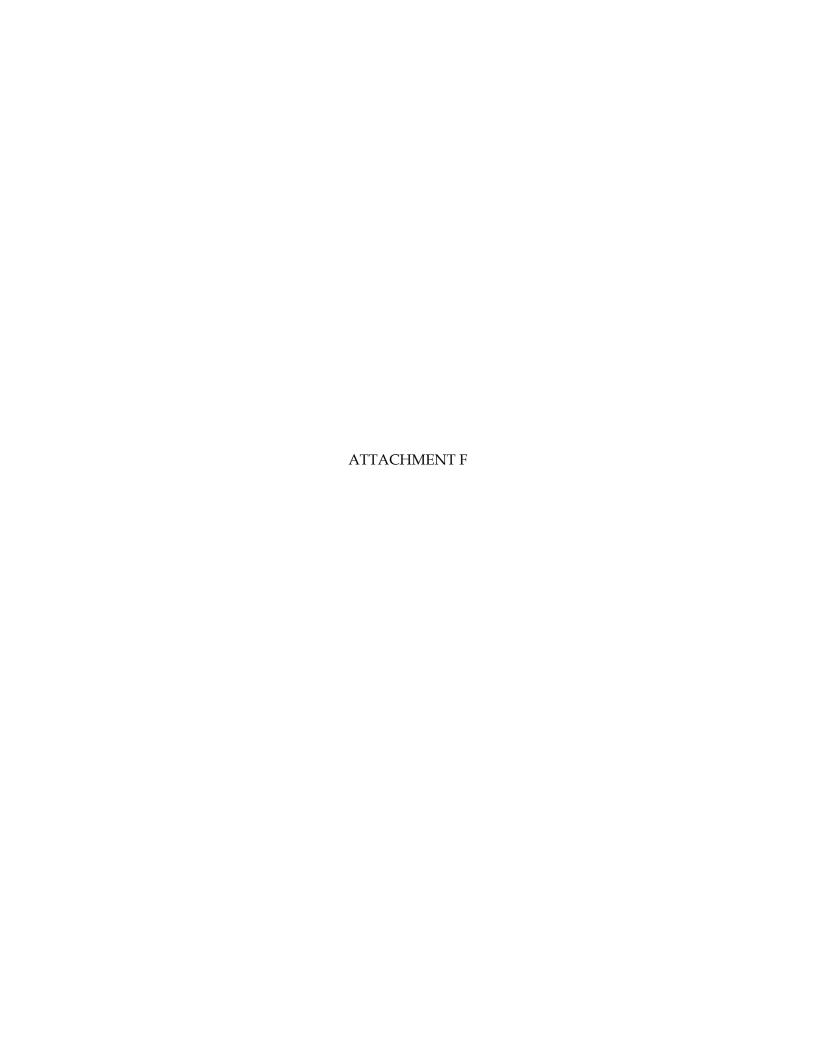


DNAPL Thickness Measurements January - March 2008 OxyChem, Delaware City, Delaware

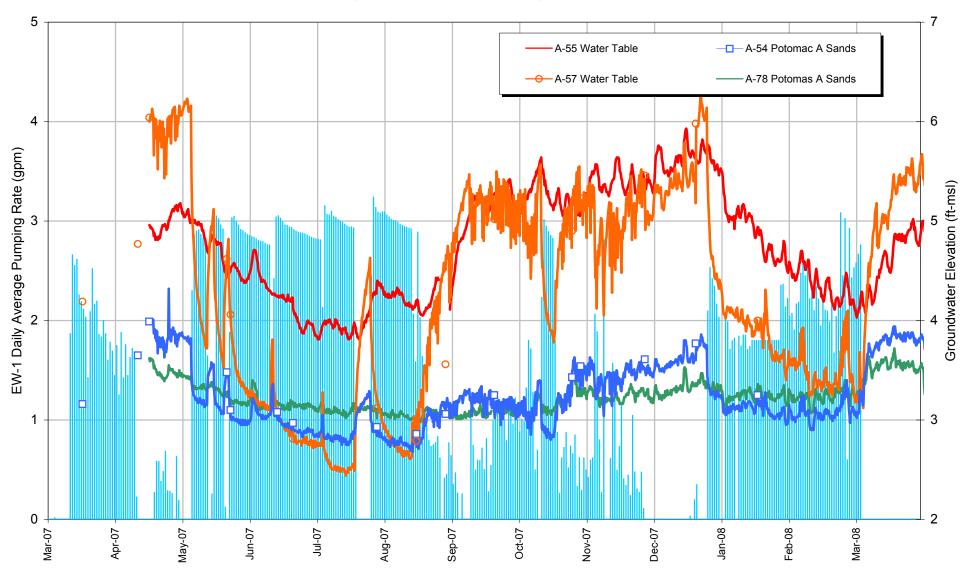


CUMULATIVE DNAPL RECOVERY All Wells through March 2008 OxyChem, Delaware City, Delaware

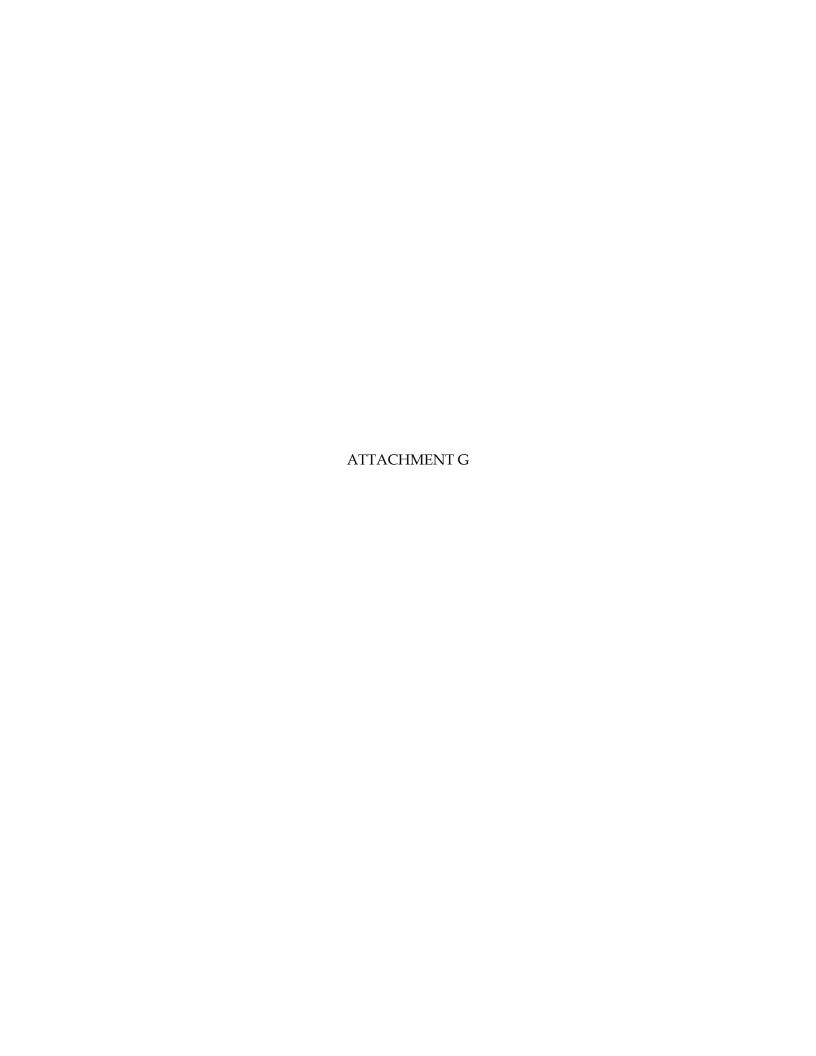




Attachment F WL-1 Hydrographs OxyChem, Delaware City, Delaware



Note: Points are hand water level measurements
Lines are data from electronic level recorders
Vertical blue lines are daily average pumping rates for EW-1



FORMER LAYDOWN AREA SILT FENCE INSPECTION

Site:			Delaware 1657 Rive	al Chemical City Plant er Road le, DE 19720	<u>)</u>		
Date:	01/31/2008			_	Time	: 1400 HRS	
Inspector:	Name:	Jack Armstr	ong				
	Title:	Environmen	tal Supervi	sor			
Weather &	Ground Cond	ditions:					
		Sun/	Cloud/	Rain,	etc:	Partly Sunny	
		Ground/	Wet/	Dry,	etc:	Dry	
Silt Fence (Conditions		Good con	dition. No g	aps or br	eaks.	

Comments	or Additiona	l Observatio	ns:	None			
						· · · · · · · · · · · · · · · · · · ·	
n						***************************************	
Recommen	ded Correcti	ve Action:		None			
	Action Taker	n:	By:	*****			
			Date:				

FORMER LAYDOWN AREA SILT FENCE INSPECTION

Site:			<u>Delaware (</u> 1657 Rive	al Chemical City Plant r Road le, DE 19720		<u>tion</u>		
Date:	02/29/2008			•••	Time	e: 1300 HRS		*************************************
Inspector:	-	Jack Armstro		sor	***			
Weather &	Ground Con	ditions:						
		Sun/	Cloud/	Rain,	etc:	Partly Sunny		
		Ground/	Wet/	Dry,	etc:	Dry		
Silt Fence C	conditions		Good con	dition. No g	aps or br	eaks.	***************************************	
			4					
Comments	or Additions	al Observatio	ns:	None	Add to the second secon			
					.,,,,,,			
Recommen	ded Correcti	ive Action:	,	None				
	Action Taker		By: Date:					

FORMER LAYDOWN AREA SILT FENCE INSPECTION

Site:			<u>Delaware</u> 1657 Rive	al Chemical City Plant r Road le, DE 19720		<u>tion</u>	
Date:	03/31/2008			•••	Time	e: 1130 <u>HRS</u>	
Inspector:	•	Jack Armstr		sor			
Weather &	Ground Con	ditions:					
		Sun/	Cloud/	Rain,	etc:	Partly Cloudy	
		Ground/	Wet/	Dry,	etc:	Dry	
Silt Fence C	Conditions		Good con	dition. No g	aps or bi	reaks.	

Comments	or Additiona	ıl Observatio	ns:	None	***************************************		
	***************************************				***************************************		<u> </u>
Recommen	ded Correcti	ve Action:		None			

	Action Take	n:	By:				
			Date:				

WASTE LAKE 3 CAP AREA

Site: (includ	le Address/Owner)	Delaware 1657 Rive	al Chemical Cor City Plant r Road le, DE 19720	poratio	<u>n</u>				
Date:	03/31/2008		-,,	Time	1135 hou	rs			
Inspector:	Name: Jack Armstr		sor						
Weather &	Ground Conditions:								
	Sun/	Cloud/		etc:	Wind; 10-15 m	ph			
	Ground/	Wet/	Dry,	etc;	Dry	The state of the s			
Cap Area Co	onditions	No subsid	lence of the ca	p. No ar	imal burrows,	oonding, erosion,			
	Grass appears healthy.								
	Grass appears nearry.								
	,								
Comments	or Additional Observation	ns:	Wind blown d	ebris or	і сар				
		A second of the second							
Bacamman	Recommended Corrective Action: Debris is scheduled to be collected								
Recommen	ided Corrective Action.		Debris is scrie	-quieu i	D Da COHACTEO				
5	Action Taken:	By:	Jack Armstro	5.01	***************************************				
	AGUON TARON.	Date:	03/31/2008	19					
		AND THE STATE IS	2010 114400			M-(M-R)			

OLD BRINE SLUDGE LANDFILL CAP AREA

Site: (includ	ile Address/Owner)	Delaware 1657 Rive	al Chemical Co City Plant r Road le, DE 19720	rporatio	<u>9n</u>
Date:	03/31/2008		-	Time	1145 hrs
Inspector:	Name: Jack Armstr	ong			
	Title: Environmen	tal Supervi	sor		
Weather &	Ground Conditions:				
	Sun/	Cloud/	Rain,	etc:	Windy; 10-15 mph
	Ground/	Wet/	Dry,	etc:	
OBSL Cap	Area Conditions	No subsid	ience of cap.	No anim	nal borrows observed.
	No erosion observed. G	rass appea	ers healthy.		
Comments	or Additional Observation	ins:	The grass is	thin and	Vor gone is some areas
	Wind blown debris on ca	ар			
Recommer	nded Corrective Action:		Re-seeding in	neede	d areas scheduled
	Debris is scheduled for	pick-up.			
	Action Taken:	By:	Jack Armstro	ng	
		Date:	03/31/2008		
		No. of Participants			

Apr-09-2008 03:54pm From-

STORM SEWER INSPECTION LOG

Site: (include Address/Owner)	Delaware 1657 Rive	al Chemical Co City Plant r Road le, DE 19720	rporation	
Date: 03/31/2008	-		Time:	0930 hours
Inspector: Name: Jack Armstr Title: Environmen		şor		
Weather & Ground Conditions:				
Sun/ Ground/	Cloud/ Wet/	Rain, Dry,	etc:	Wind;10-15 mph
Storm Sewer Conditions:	Minor deb	oris observed a	t the Eas	t end of the North and South Ditches.
	delicates			
Comments or Additional Observation	ns:	None		
Recommended Corrective Action:		Remove debr	is and re	placed oil booms
Action Taken:	By: Date:	Jack Armstro 04/08/2008	ng	





1657 River Road New Castle, Delaware 19720-5194 Phone 302.834.3800 Fax 302.834.3987

April 9, 2008

CERTIFIED MAIL -- RETURN RECEIPT REQUESTED

Mr. Eric Trinkle Department of Natural Resources and Environmental Control Division of Air and Waste Management 89 Kings Highway Dover, DE 19901

RE: DED003913266, Post-Closure Permit No. HW04A09

Dear Mr. Trinkle:

Attached are inspection report forms for the closed new brine sludge impoundment areas as required by Section 6.0 (Post-Closure Inspections) of our permit. These forms cover inspections made in January, February and March 2007.

The leachate collection sump was not vacuumed during the first quarter of 2008.

If you have any questions please call me on 302-834-3831.

Sinecrely.

Jack Armstrong

Environmental Manager

Enc.

CC:

Rick Passmore - GSH

John Garges - CRA

APPENDIX H INSPECTION REPORT FORM NEW BRINE SLUDGE LANDFILL

Occidental Chemical Corporation Delaware City, Delaware

	te of Inspection <u>Ol-31-08</u> Time <u>1600</u>	
Ins	pector's name/title: JACK ARMSTNENG / ENVIRONMENTAL MAND	g W
1.	Security A. Condition of Security Fence around NBSL? Secure? Comments:	Yes V No
2.	Landfill Cover Integrity A. Visual inspection of cover integrity Local Subsidence? Comments:	YesNo/
	B. Visual inspection for erosion Soil/vegetation condition ok? Comments:	Yes V No
3.	Water Management A. Visual inspection of run-on/run-off control system Local ponding on cover? Comments:	YesNo
	Visual inspection of drainage pathways. Sediment accumulation in swales and drainage pipes? Comments:	Yes No
4.	Visual inspection of leachate collection sump. Leachate present in sump? Comments: Level = 115"	Yes V No
5.	Monitoring Wells A. Visual inspection of monitoring wells. Monitoring wells in good condition? Comments:	Yes V No

APPENDIX H INSPECTION REPORT FORM NEW BRINE SLUDGE LANDFILL

Occidental Chemical Corporation Delaware City, Delaware

	te of Inspection 02 · 29 · 08 Time 14 3 0	
Ins	spector's name/title: Jack ADMITHONE / ENVIRONMENTAL MANAGER	
1.	Security A. Condition of Security Fence around NBSL? Secure? Comments:	Yes No
2.	Landfill Cover Integrity A. Visual inspection of cover integrity Local Subsidence? Comments:	Yes No
	Visual inspection for erosion Soil/vegetation condition ok? Comments:	Yes / No
3.	Water Management A. Visual inspection of run-on/run-off control system Local ponding on cover? Comments:	Yes No
	Visual inspection of drainage pathways. Sediment accumulation in swales and drainage pipes? Comments:	YesNo
4.	Comments:	Yes No
5,	Monitoring Wells A. Visual inspection of monitoring wells. Monitoring wells in good condition? Comments:	Yes No

APPENDIX H INSPECTION REPORT FORM NEW BRINE SLUDGE LANDFILL

Occidental Chemical Corporation Delaware City, Delaware

D	ate of Inspection 03/3/108 Time 1400 hrs aspector's name/title: JACK ARMSTRONG / ENVIRON mostel major	
In	spector's namefille: JACK ARMSTRONG /ENVIRON mostel maj	ngg er
1.	Security · A. Condition of Security Fence around NBSL? Secure? Comments:	Yes No
2.	Landfill Cover Integrity A. Visual inspection of cover integrity Local Subsidence? Comments:	Yes No V
	Visual inspection for erosion Soil/vegetation condition ok? Comments:	Yes No
3.	Water Management A. Visual inspection of run-on/run-off control system Local ponding on cover? Comments:	Yes No
	Visual inspection of drainage pathways. Sediment accumulation in swales and drainage pipes? Comments:	YesNo
4.	Visual inspection of leachate collection sump. Leachate present in sump? Comments: Level = 109,5	Yes No
5.	Monitoring Wells ALLANGED FOR A VACUUM TRUCK TO PUMP OUT SUMP. A. Visual inspection of monitoring wells. Monitoring wells in good condition? Comments:	Yes V No